

**REQUEST FOR QUALIFICATIONS (RFQ)
TO PREQUALIFY GENERAL CONTRACTORS FOR THE
MISCELLANEOUS WATER PLANT IMPROVEMENTS PROJECT**

BY THE CITY OF ASHEVILLE

**Issue Date: August 29, 2016
Submittal Deadline: September 16, 2016**

SOLICITATION

In accordance with North Carolina General Statute 143-135.8, the City of Asheville is soliciting Applications for Bidder Prequalification for the purpose of prequalifying interested general contractors to bid on the Miscellaneous Water Plant Improvements Project, hereinafter called the "Project."

Only applicants that have been prequalified in accordance with this RFQ (Request for Qualifications) will be allowed to submit bids for this contract. Bids received by those who have not been prequalified under the terms of this RFQ will be deemed non-responsive.

A complete copy of the RFQ may be obtained from the City's bid website www.ashevollenc.gov/bids or by contacting Ms. Leslie Jones, Project Manager, Brown and Caldwell, at lcjones@brwncald.com or (704)373-7127. The Application for Bidder Prequalification (also referred to as the Application) and the associated forms contained in this RFQ will be the only acceptable application format.

The completed application in a sealed envelope must be delivered no later than 2:00 P.M. local time on September 16, 2016 to:

Jade S. Dundas, Director	
City of Asheville Water Resources Department	
Physical Address (FedEx, UPS):	Mailing Address (USPS):
City Hall Building – Mezzanine Floor	PO Box 7148
70 Court Plaza	Asheville, NC 28802
Asheville, NC 28801	(828) 259-5955
(828) 259-5955	

No applications will be accepted after the deadline.

The City of Asheville plans to complete the prequalification process in September 2016. Distribution of bidding documents is scheduled for early October 2016, with an expected bid deadline date in late October 2016. Construction Notice to Proceed is projected in January 2017 and to be completed within 365 calendar days. This schedule is subject to change.

The City of Asheville has retained Brown and Caldwell to design the Project and to manage the bidding phase and construction administration.

The Project consists of construction of the following proposed improvements to be constructed as part of this project is as follows:

- A. Replacement of rate of flow controllers, butterfly valves and powered actuators for Filter No. 1, 2, 3, 4, 5 and 6 at the North Fork Water Treatment Plant

- B. Replacement of the backwash rate of flow controller and backwash pipe leak repair at the North Fork Plant
- C. Construction of backwash lagoon Parshall flume flow meter, RTU, and wireless transmitter at the North Fork Plant
- D. Construction of backwash lagoon ultrasonic level sensor flow meter, RTU, solar panel and wireless transmitter at the Mills River Plant
- E. Repair of leaks around pipe penetrations in the filter gallery wall at the North Fork Plant
- F. Construction of 8-inch high pressure water line and fire hydrant and 2-inch water line and yard hydrants at the North Fork Plant
- G. Architectural and structural building repairs at the North Fork Plant
- H. Repair to stop leak around inlet pipe penetration in the clearwell at the North Fork Plant

It should be noted that this project has specific sequence of construction requirements to maintain water treatment operations at the North Fork and Mills River water treatment plants. Several plant shutdowns will be required to perform the work with specific requirements and preparation by the Contractor as listed in the project documents. A copy of the current draft design plans and detailed work sequence is provided as Attachments B and C for the Applicants use in understanding the proposed project. These documents are draft and should not be considered ready for bidding or construction.

City of Asheville
Jade Dundas
Director Department of Water Resources

GENERAL

The Project is located at the North Fork Water Treatment Plant in Black Mountain, Buncombe County, North Carolina and at the Mills River Water Treatment Plant in Henderson County, North Carolina and is briefly described in the Solicitation. The successful bidder will be required to furnish all labor, materials, equipment, tools, services and incidentals to complete the Work in accordance with the Bidding Documents.

The City of Asheville shall not be responsible for any cost incurred by Applicants because of participation in this prequalification process. Each Applicant shall bear its own expense in connection with the preparation and submission of materials and the provision of any supplemental information requested. The City of Asheville shall have no liability for cost incurred by applicants in connection with the review and evaluation of prequalification materials and any findings and determinations made therefrom. All materials and information submitted during the prequalification process will become the property of the City of Asheville and will not be returned to the Applicant.

The decision to prequalify an Applicant shall not constitute a determination that the Applicant is a responsible bidder, and such Applicant may be subsequently deemed as a non-responsible bidder pursuant to NCGS 143-129.

APPLICATION REQUIREMENTS

The Applicant must complete and submit an original, one (1) paper copy, and two (2) PDF format copies on separate compact discs, with one of the copies being redacted per any confidential/proprietary information defined below (for a total of four sets-two paper and two digital) of the application and all associated forms and attachments, which together comprise the Application for Bidder Prequalification (referred to herein as the "application" or "submittal"). The application shall be signed where indicated and submitted in a sealed envelope to the City of Asheville. The Applicant's name and the project name should be clearly displayed on the outside of the envelope.

The time and date of receipt shall be indicated on the sealed envelope by the City of Asheville. Timely submission is the sole responsibility of the Applicant. Fax copies, electronic copies, and responses received after the specified time will not be considered. All applications received become the property of the City and will not be returned.

Responses to the RFQ must be typed or neatly printed. The information presented should be clear, complete, and concise. All attachments submitted shall be identified with the name of the Applicant. Failure to submit a response on the official City forms provided for that purpose may be considered just cause for rejection of the response. Modification of any portion of the solicitation may be cause for rejection of the response. The City of Asheville reserves the right to decide, on a case-by-case basis, at its sole discretion, whether to reject such an application as non-responsive.

CONFIDENTIAL / PROPRIETARY INFORMATION

Submitters should give specific attention to the identification of those portions of their Statement of Qualifications which they deem to be confidential, proprietary information or trade secrets, and provide any justification of why such materials, upon request, should not be disclosed by the City under North Carolina public records laws. Submitters must clearly indicate each and every section that is deemed confidential, proprietary or a trade secret as required by statute. It is NOT sufficient to preface your entire Statement of Qualifications with a proprietary statement.

If the City determines that a document that the Applicant has designated "confidential" or "trade secret" is not entitled to protection from public disclosure, the City will provide notice of that determination to the contact person designated by the Applicant, in any reasonable manner that the City can provide such notice, at least five business days prior to its public disclosure of the document. If the Applicant does not designate anyone to receive such notice the City will not have any obligation to provide any notice of a determination of non- confidentiality. If the Applicant does not designate anyone to receive such notice, or if, within five business days after the designated person receives such notice, the Applicant does not initiate judicial proceedings to protect the confidentiality of the document, the City will not have any obligation to withhold the document from public disclosure.

By submitting to the City a document that the Applicant designates as "confidential" or "trade secret", the Applicant agrees that in the event a third party brings any action against the City of any of its officials or employees to obtain disclosure of the document, the Applicant will indemnify and hold harmless the City and each organization's affected officials and employees from all costs, including attorney's fees incurred by or assessed against any defendant, of defending against such action. The Applicant also agrees that at the City's request the Applicant will intervene in any such action and assume all responsibility for defending against it, and that the Applicant's failure to do so will relieve the City of all further obligations to protect the confidentiality of the document.

ADDENDA AND INTERPRETATIONS

All questions relating to the RFQ and the associated application and attachments must be emailed to Ms. Leslie Jones, Project Manager, Brown and Caldwell, at lcjones@brwnncald.com. To be given consideration, such requests must be received not later than September 9, 2016 at 2:00 P.M. local time. Any and all such interpretations and any supplemental instructions or changes will be in the form of written addenda which, if issued, will be posted at the City's bid website under the heading "Current Bidding Opportunities", no later than September 12, 2016 at 4:00 P.M. local time. It is the applicant's responsibility to check the website for any additional addenda. Failure of any applicant to receive any such addenda shall not relieve such applicant from any obligation under its application as submitted. All addenda so issued shall become part of the RFQ and must be signed by all applicants and returned to the City of Asheville with the application.

NOTICE OF SUBSTANTIAL CHANGES

If the Applicant experiences a material change in its debarment status, financial condition, corporate structure, ownership, affiliation, personnel or material changes in assets after the application is submitted and prior to the award of the contract for the project, the Applicant shall notify the City of Asheville of the change in writing at the time the change occurs or as soon thereafter as is reasonably practicable.

Failure to notify the City of Asheville of any material change in the Applicant's debarment status, financial condition, corporate structure or personnel may constitute grounds for rescinding a "qualified to bid" rating or for rejection of a bid.

MISREPRESENTATION

If any applicant knowingly makes a misrepresentation in submitting information to the City of Asheville, or fails to provide all required information, such misrepresentation or omission will be sufficient grounds for rescinding a "qualified to bid" rating or for rejection of a bid submitted as a result of this prequalification.

COLLUSION AMONG APPLICANTS

More than one response from an individual, firm, partnership, corporation, or association under the same or different name will be rejected. Any or all responses will be rejected if there is any reason for believing that collusion exists among the applicants. Participants in such collusion may not be considered in future bids for the same work. Each prospective applicant, by submitting a response, certifies that they are not a party to any collusive action or to any action that is otherwise unlawful. Nothing in this section will preclude a firm acting as a subcontractor to be included as a subcontractor for two or more prime contractors submitting a response for the Work.

REVIEW OF APPLICATIONS

A Prequalification Committee will review each timely received prequalification application to determine whether the required documents are submitted with the application and whether the applicant's responses meet all of the minimum thresholds for the criteria set out in the Prequalification Notice.

An applicant must submit all of the required documents and meet the minimum threshold to be prequalified to bid on the Project.

An applicant that does not submit all of the required documents or fails to meet the minimum threshold will not be prequalified to bid on the Project.

The Prequalification Committee shall approve or deny the applications in accordance with the prequalification criteria and scoring system.

The applicants shall be promptly notified in writing of the Prequalification Committee's decision via email. The notification to an applicant determined not to be prequalified shall include the reason(s) for denial. Notice shall be provided prior to the Advertisement of Bids for the Project and with sufficient time for the applicant to protest the denial of prequalification, and if the denial is reversed, sufficient time for the firm to prepare a bid.

PROTEST PROCEDURE

Initial Protest: An applicant may protest the denial of prequalification as follows:

- a) A written protest must be received by the Purchasing Manager within two business days of notice of denial. The written protest shall clearly identify the project and the Project Manager, clearly articulate the reasons for the protest, and attach any documents or additional information in support of the applicant's position.
- b) The Purchasing Manager will contact the firm and set up a date and time to discuss the protest.
- c) If upon review, the Purchasing Manager determines that the applicant meets the criteria for prequalification, the applicant shall be notified that it is prequalified to bid on the Project and

allowed to participate in the bid process. If the Purchasing Manager upholds the denial, the applicant shall be notified in writing by email.

Appeal: If the applicant desires further review after receiving the decision of the Purchasing Manager, the applicant may request an administrative review and final decision by the City Manager/designee as follows:

- a) A written request for administrative review must be received by the City Manager/designee within two business days from the applicant's receipt of the decision from the Purchasing Manager.
- b) The request for administrative review shall clearly identify the project and the Project Manager, clearly articulate the reason(s) for the review, and attach any documents or additional information in support of the applicant's position.
- c) The City Manager/designee, will contact the firm and set up a date and time for the administrative review. If, upon review, the City Manager/designee, determines that the applicant meets the criteria for prequalification, the applicant shall be notified that it is prequalified to bid on the project and allowed to participate in the bid process. If the City Manager/designee upholds the denial, the applicant shall be notified in writing by email. This decision shall be final.

General Rules for Protest: Firms submitting applications shall be provided an email address for communication with the Purchasing Manger during the protest process; and

- a) The applicant shall provide at least two email addresses for use by the Purchasing Manager in communicating with the applicant.
- b) The bid opening cannot occur until the protest process is completed.
- c) The bid opening must be scheduled in order to allow sufficient time for a bidder that is prequalified as a result of a protest to submit a bid on that Project.

EVALUATION

It is the intent of the City of Asheville to impartially and objectively evaluate a contractor, and to properly determine by its responsible business practices, work experience, manpower, and equipment that it meets the minimum qualifications to bid on the construction project.

A. NON-POINT RATING ITEMS

A non-responsive rating on any item in the category titled "Non-Point Rating Items" will be considered sufficient cause to determine that an Applicant is non-responsive and cannot bid. The following are non-point criteria:

1. **Responsiveness to RFQ** - Only responsive applications will be considered and evaluated. A responsive application must be completed according to the instructions, include all required attachments and requested information and any additional information as needed to provide a complete response to the RFQ.
2. **Contractor's License** - The Applicant must provide a copy of their license from the North Carolina Licensing Board for General Contractors, or provide a statement indicating that they are able to acquire one prior to submitting a bid.
3. **Bonding Capacity/Statement** - Applicants must provide a signed statement from their Surety stating that, based on present circumstances, the surety will be willing to provide bid, performance and payment bonds for the Applicant in connection with the Project.
4. **Past Safety Performance** – The Applicant must provide their most recent Experience Modification Rate (EMR) and their Days Away, Restricted, or Transferred (DART) Rate for each of the last three previous years as well as a copy of the firm's safety training program and any safety awards earned, and an affidavit summarizing any complaints or violations.
5. **Minimum Water Filtration Plant Relevant Experience** - The minimum experience requirement for prequalification is successful completion as the general contractor of at least three water treatment plant improvements valued at greater than \$1 million within the last five years.
6. **Application Affidavit** – The Applicant must provide a completed, signed and notarized Application Affidavit.

B. POINT-RATING ITEMS

These items will be scored from zero (0) to three (3) with zero the lowest score that may be awarded and three the highest score awarded for each individual section.

7. **Past Project Performance** - During evaluation of project performance, emphasis will be placed on recent completed projects of a similar size and nature to the Project, including Applicant's ability to meet scheduled completion dates. The project descriptions provided in the application should explicitly state the Applicant's experience in dealing with staged construction, maintenance of facility operations, experience with working with a potable water piping and treatment systems including successful disinfection programs, and the ability to construct these projects in the original set schedule. *Score 0-3 points, 30% of overall score*
8. **Personnel Qualifications/Experience** - The designated project manager and superintendent must have experience on projects of similar size and scope. Applicant must dedicate the proposed personnel to the project and may not make changes without written approval from the City. The qualifications of other personnel will also be considered in this evaluation. *Score 0-3 points, 25% of overall score*
9. **References** – The City intends to contact references listed in the application Attachment A copies and may contact other potential references if referred to them in the course of this evaluation. The City reserves the right to contact any party it deems appropriate and by submitting a response to this RFQ, the Applicant releases the City and any references from all liability concerning this exchange of information. References will be asked about adherence to the project schedule, quality of the completed work, and overall cooperation and coordination of the job. *Score 0-3 points, 20% of overall score*
10. **Financial Data and Insurance** - Financial data will be reviewed and compared to industry standards. Insurance will be reviewed to determine if applicant can provide the required insurance coverage. *Score 0-3 points, 5% of overall score*
11. **Claims/Final Resolution/Judgments** - Evaluation of this data will be based on the number of affirmative answers to the questions and the details provided in the explanation for each occurrence. *Score 0-3 points, 10% of overall score*
12. **Failure to Complete – Applicant** – Evaluation of the Applicant's failure to complete projects will primarily be based on the number of occurrences and the explanations for the failure to complete in conjunction with the references on those projects. *Score 0-3 points, 5% of overall score*
13. **Failure to Complete – Partner/Officer** – Evaluation of the Applicant's partners and/or officers to complete projects will be primarily based on the number of occurrences and the explanations for the failure to complete in conjunction with the references on those projects. *Score 0-3 points, 5% of overall score*

**APPLICATION FOR BIDDER PREQUALIFICATION
NON-POINT RATING ITEMS**

SECTION 1. APPLICANT INFORMATION

1. Applicant Name: _____
Provide all names under which the Applicant does business or has done business in the past five (5) years: _____

2. Physical Address: _____

3. Mailing Address: _____

4. Office Address of Primary Administration Responsibility: _____

5. Phone Number: _____ Fax: _____

6. Provide contact information including name, title, phone number and email address of the person who can respond authoritatively to any questions regarding this response:

Primary Contact Name

Secondary Contact Name

Primary Contact Title

Secondary Contact Title

Primary Contact Email

Secondary Contact Email

7. Tax Identification Number (EIN/SSN): _____

8. Is Applicant registered with the State of North Carolina to do business? Yes___ No___

9. Is the Applicant related to another firm as a parent, subsidiary, or affiliate?
Yes___ No___

If yes, attach names and addresses for all affiliated, parent and/or subsidiary companies, and state the nature of each affiliation.

10. Is Applicant a corporation? Yes___ No___

If yes, what is the State of incorporation? _____

11. If not incorporated, specify method and date of organization: _____

If a partnership, attach partnership details (such as partner's names and individual contact information for each partner). If a Joint Venture (JV), attach the JV agreement and provide details of the intended role of each JV member, including appropriate additional attachments (at a minimum an Attachment D for each JV member).

12. How long has the firm been in business in its current organizational structure? Has the firm itself or any of its owners, officers, partners or individuals authorized to represent, conduct business or sign legal documents for the firm or any other firm or legal entity have been debarred, suspended, or otherwise prohibited from receiving federal, state or local funds within the five years preceding the _____ date _____ of _____ the _____ Notice _____ of _____ Prequalification? _____

13. Provide the full legal names of all individuals authorized to represent or conduct business for or sign _____ legal _____ documents _____ for _____ the _____ Applicant: _____

SECTION 2. CONTRACTOR'S LICENSE

1. Provide a copy of all North Carolina professional licenses required to perform the work.

Name of licensee /NC License Number

License Limit/Level

2. Has any license ever been denied or revoked? Yes___ No___

If yes, please describe: _____

SECTION 3. BONDING CAPACITY/STATEMENT

1. Attach a signed statement, dated within the last 30 days, from Applicant's Surety, signed by their Attorney in Fact, stating that, based on present circumstances, the surety will be willing to provide bid, performance and payment bonds for the Applicant in connection with the Project. Surety company bond rating shall be rated "A" or better under the A.M. Best Rating system or The Federal Treasury List.

Total bonding capacity \$ _____

Available bonding capacity \$ _____

2. Have any funds been expended by a Surety Company on your firm's behalf? Yes___No___ If yes, provide details on a separate sheet for each instance.

SECTION 4. PAST SAFETY PERFORMANCE

1. Provide the following Experience Modification Rate (EMR) and Days Away, Restricted, or Transferred (DART) Rate numbers, see below for instructions and definitions.

Previous 3 Years EMR = _____, _____, _____

Previous 3 Years DART Rates = _____, _____, _____

Experience Modification Rate (EMR)

a. Definition: The Experience Modification Rate is a widely used indicator of a contractor's past safety performance. The insurance industry has developed experience rating systems as an equitable means of determining premiums for workers' compensation insurance. A firm's rating is based on a comparison of firms doing similar types of work.

Workers' compensation insurance premiums for a contractor are adjusted by this rate. Lower rates, meaning that fewer or less severe accidents had occurred than were expected, result in lower insurance costs. A contractor's EMR is adjusted annually by using the rate for the first three of the last four years.

b. Standard: The Applicant shall report their past three years' EMR where indicated. If EMR data is not available, the applicant shall provide a statement certifying that the information is not available and an explanation as to why the information is not available. Also, in the event the information cannot be provided, the applicant shall provide the name and telephone number of a representative of its Workman's Compensation Insurance provider that is familiar with the applicant's past safety performance. Applications which do not include the required information will be normally deemed as non-responsive and will not be prequalified. The City of Asheville reserves the right, at its sole discretion, to prequalify an applicant that is unable to provide the required information in the event that the City of Asheville determines that the applicant has provided an acceptable explanation as to why the information is unavailable and the City of Asheville determines, through some other means, that the applicant has an excellent safety record.

The City of Asheville shall evaluate applications using the following standards:

Acceptable: EMR of 1.0 or less
Not Acceptable: EMR greater than 1.0

Submittals with an EMR greater than 1.0 will not be prequalified unless applicants with an EMR of greater than 1.0 provide additional supporting information they believe that extenuating circumstances unrelated to job site safety have resulted in their high EMR. The City of Asheville reserves the right, at its sole discretion, to prequalify applicants with an EMR

greater than 1.0 if the City of Asheville determines that the reported EMR is not reflective of the applicant's past job site safety performance.

Occupational Safety and Health Administration (OSHA) Days Away, Restricted, or Transferred (DART) Rate

a. Definition: OSHA has established specific mathematical calculations that enable firms to report their DART rates so that they are comparable across any industry or group.

The OSHA DART Rate is calculated as shown below:

$(N / EH) \times (200,000)$ where N is the number of cases involving 1) days away and/or 2) restricted work activity, and/or 3) job transfer; EH is the total number of hours worked by all employees during the calendar year; and 200,000 is the base number of hours worked for 100 full-time equivalent employees

b. Standard: The applicant shall report DART Rate data for their firm for each of the last three previous years where indicated. If DART data is not available, the applicant shall provide a statement certifying that the information is not available and an explanation as to why the information is not available. Applications which do not include the required information will not normally be prequalified. The City of Asheville reserves the right, at its sole discretion, to prequalify an applicant that is unable to provide the required information in the event that the City of Asheville determines that the applicant has provided an acceptable explanation as to why the information is unavailable and the City of Asheville determines, through some other means, that the applicant has an excellent safety record.

The City of Asheville shall evaluate applications using the following standard:

Acceptable: average DART Rate (three previous years) of less than 1.30 times the most recently published national rate for North American Industry Classification System (NAICS) Code 23711 (water and sewer line and related structures construction) from the OSHA website <http://www.bls.gov/iif/oshsum.htm#09Summary%20Tables>. The number that will be used in the calculation to determine the national rate can be found in the table under the "Total" column that is under the larger column heading that states "Cases with days away from work, job transfer, or restriction".

Not Acceptable: average DART Rate (three previous years) equal to or greater than 1.30 times the most recently published national rate for North American Industry Classification System (NAICS) Code 23711

Submittals with an average DART Rate greater than 1.30 times the most recently published national rate will not normally be prequalified. However, applicants with an average DART Rate greater than 1.30 times the most recently published national rate may provide additional supporting information if they believe that extenuating circumstances unrelated to job site safety have resulted in their high (average) DART Rate. The City of Asheville reserves the right, at its sole discretion, to prequalify applicants with an average DART Rate greater than 1.30 times the most recently published national rate if the City of Asheville determines that the reported average DART Rate is not reflective of the applicant's past job site safety performance.

2. Provide a copy of the firm's safety training program(s) and any safety awards earned within the past 3 years.
3. If applicable, provide an affidavit summarizing any complaints, safety violations or reports from the North Carolina Code Officials Qualifications Board, OSHA, or any other regulating agency associated with any construction project within the past 3 years.

SECTION 5. RELEVANT EXPERIENCE

Provide examples of relevant experience of at least three water treatment plant improvements valued at greater than \$1 million within the last five years on separate copies of Attachment A.

SECTION 6. APPLICANT AFFIDAVIT

The undersigned hereby attests under penalty of perjury and by personal knowledge to the following:

1. The contents of the Application for Bidder Prequalification (including all submitted attachments and other documentation) are true and correct.
2. To the best of my knowledge neither the Applicant, nor its agents, affiliates, partners, employees, officers, directors or other associates of any kind, have colluded with any individual or entity on behalf of the Applicant, or themselves, to produce an unfair advantage over others or to gain favoritism in the award of any contract resulting from this RFQ.
3. By responding to this RFQ and submitting the Application for Bidder Prequalification also referred to as the submittal), the Applicant agrees to indemnify and hold harmless all parties to this RFQ, including, but not limited to, the Owner, Engineer and Construction Manager for any conceivable damages arising therefrom; and affirms that no compensation is expected as a result of the preparation of said response.
4. Applicant agrees to use the submitted personnel for the duration of this project. Any changes in the submitted personnel must be approved in writing by the City of Asheville.

Officer's Signature: _____

Printed name and title: _____

Company Name (as licensed in NC): _____

Telephone No. and Email: _____

Notary Certification: North Carolina, _____ County

I, a Notary Public of the County and State aforesaid, certify that _____,
personally appeared before me this day and acknowledged the execution of the foregoing instrument.
Witness my hand and official seal, this the __ day of _____, 20__.

(Official Notary Seal or Stamp)

Signature of Notary Public

My commission expires _____, 20 __

**APPLICATION FOR BIDDER PREQUALIFICATION
POINT RATING ITEMS**

SECTION 7. PAST PROJECT PERFORMANCE

1. Using separate copies of Attachment A for each project, provide details of all other projects, in addition to the 3 provided in Section 6, that have been completed in the past 5 years.

2. Type of Work performed on a regular basis by the Applicant:

Primary Scope of Work and Percentage of Annual Revenue: _____%

Secondary Scope of Work and Percentage of Annual Revenue: _____%

Other Scope of Work and Percentage of Annual Revenue: _____%

3. Percent of labor of self-performed work completed by applicant using non-employees (temporary labor, day labor, etc.) in the last 2 years: _____%

SECTION 8. PERSONNEL QUALIFICATIONS/EXPERIENCE

1. Submit a copy of the Applicant's corporate organizational chart. Provide the quantity of employees identified by discipline and project with names and titles down through field superintendents.
2. Provide proposed project organizational chart and attach resumes of key personnel. Emphasize years of construction experience, last employer, last position, and experience on similar water treatment projects.
3. Provide the amount labor expected to be performed by non-employees, i.e. day labor, temporary services firms, etc.
4. Specify the portions of the Work that the Applicant expects to self-perform and subcontract:

Self-Perform

Subcontract

_____	_____
_____	_____
_____	_____
_____	_____

SECTION 9. REFERENCES

Reference information to be provided on copies of project experiences in Attachment A.

SECTION 10. FINANCIAL DATA AND INSURANCE

1. Submit your organization's most recent audited financial statements for a three-year period. Complete balance sheets and income statements must be included. The statements shall be enclosed in a separate sealed envelope and included in the application package and it should be noted if the statement is for a parent company. Firms that do not have audited financial statements will be required to submit copies of their filed Federal Income Tax Returns for the same period as their balance sheet and income statement on company letterhead for the same period.

2. Has the Applicant, or any affiliate, ever been denied bonding or had bonding revoked?

Yes ____ No ____

If yes, provide details on a separate sheet for each instance.

3. The minimum requirements of coverage are listed below. Firms must provide evidence of insurance coverage by attaching a copy of their insurance certificate.

1. Workers' Compensation, and related coverages:

State:	Statutory
Federal, if applicable (e.g., Longshoreman's):	Statutory
Employer's Liability:	
Bodily injury, each accident	\$ <u>1,000,000.00</u>
Bodily injury by disease, each employee	\$ <u>1,000,000.00</u>
Bodily injury/disease aggregate	\$ <u>1,000,000.00</u>

2. Contractor's Commercial General Liability:

General Aggregate	\$ <u>2,000,000.00</u>
Products - Completed Operations Aggregate	\$ <u>2,000,000.00</u>
Personal and Advertising Injury	\$ <u>1,000,000.00</u>
Each Occurrence (Bodily Injury and Property Damage)	\$ <u>1,000,000.00</u>

3. Automobile Liability:

Combined Single Limit of	\$ <u>1,000,000.00</u>
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4. Excess or Umbrella Liability:

Per Occurrence	\$ <u>4,000,000.00</u>
General Aggregate	\$ <u>4,000,000.00</u>

SECTION 11. CLAIMS/FINAL RESOLUTION/JUDGEMENTS

Have any of the following actions occurred on, or in conjunction with, any project performed by the Applicant, or any of its owners, officers, partners or individuals authorized to represent, conduct business or sign legal documents for the firm in the last five years?

a. Legal Action Implemented by Contractor against Owner Yes__ No__

b. Legal Action Implemented by Contractor against Subcontractor Yes__ No__

- c. Legal Action Implemented by Owner Yes__ No__
- d. Legal Action Implemented by Subcontractor Yes__ No__
- e. Settlement, liquidated damages, administrative fee or Close Out Agreement in effect with Owner Yes__ No__
- f. Judgments Yes__ No__
- g. Arbitrations Yes__ No__
- h. Convicted of charges relating to conflicts of interest, bribery, or bid-rigging? Yes__ No__
- i. Barred from bidding public work in North Carolina? Yes__ No__

If the answer to any of items a. through i. above is yes, provide details including any amounts paid per item e. on a separate sheet for each instance.

SECTION 12. FAILURE TO COMPLETE - APPLICANT

Has your organization ever failed to complete any work awarded to it? This includes termination for the convenience of the Owner or any other reason for failing to complete a project.
Yes__ No__

If yes, provide details on a separate sheet for each instance.

SECTION 13. FAILURE TO COMPLETE – PARTNER/OFFICER

Has any officer or partner of your organization ever been an officer or partner of some other organization that failed to complete a construction contract or failed to complete a construction contract handled in his or her own name? This includes termination for the convenience of the Owner or any other reason for failing to complete a project.
Yes__ No__

If yes, provide details on a separate sheet for each instance.

**ATTACHMENT A
DETAILS OF PAST PROJECTS AND REFERENCES**

Using a separate copy of this form for each project, provide details of projects that are most similar in size and scope to the Project as described in the sections above.

1. Contractor Name: _____
If Contractor's Name is not the same as Applicant's name, state relationship (i.e. parent company, subsidiary, JV etc.): _____
Project Manager: _____
Superintendent: _____
2. Project Name: _____
Project Location: _____
Contract # _____ Project# _____
3. Owner: _____
Address: _____
Contact Person & Title: _____
Contact Email & Phone # _____ ()
4. Engineer: _____
Address: _____
Contact Person & Title: _____
Contact Email & Phone# _____ ()
5. Construction Manager (if any): _____
Address: _____
Contact Person & Title: _____
Contact Email & Phone # _____ ()
6. Contract Dates (completion dates should reflect substantial completion - if not indicate)
Notice to Proceed: _____
Contractual Completion: _____
Actual Completion: _____
7. Description of Project: _____

8. Original Contract Value: \$ _____
Final Contract Value: \$ _____
Value of Change Orders to Date: \$ _____
Outstanding Claims to Date: \$ _____

9. Bonding Company: _____
Address: _____
Contact Person & Title: _____
Contact Email & Phone # _____ () _____

10. List the three largest subcontractors on this project in terms of percentage of participation. Attach additional information regarding subcontractors, regardless of the value of the work, whose involvement in this project would demonstrate similar experience with construction activities to be expected on this job.

a. Subcontractor: _____
Trade: _____ Participation: _____ %
Address: _____
Contact Person & Title: _____
Contact Email & Phone # _____ () _____

b. Subcontractor: _____
Trade: _____ Participation: _____ %
Address: _____
Contact Person & Title: _____
Contact Email & Phone # _____ () _____

c. Subcontractor: _____
Trade: _____ Participation: _____ %
Address: _____
Contact Person & Title: _____
Contact Email & Phone # _____ () _____

ATTACHMENT B
PRELIMINARY WORK SEQUENCE

SECTION 01 12 16

WORK SEQUENCE

PART 1 GENERAL

1.01 CONTINUITY OF PLANT OPERATIONS

- A. The existing North Fork and Mills River water treatment plants are currently and continuously treating water and those functions shall not be interrupted except as specified herein. The Contractor shall coordinate the work to avoid any interference with normal operation of plant equipment and processes except as approved in advance by the Owner. All treatment plant process interruptions and shutdowns shall be performed by the Owner.

1.02 INTERRUPTION OF PLANT OPERATIONS

- A. Interruption of service including the water filtration and filter backwash processes, electrical systems, potable water service, backwash lagoon system or any other system except as approved by and performed by the Owner is prohibited during construction. All service disruptions must be planned for and approved in advance. The Owner will interrupt and/or shutdown processes to facilitate operations by the Contractor in accordance with the approved outage plan. In the event accidental interruption is caused by the Contractor's operations, the Owner shall immediately be entitled to employ others to stop the interruption without giving written notice to the Contractor.
- B. Penalties imposed on the Owner as a result of any interruptions caused by the actions of the Contractor, his employees, or subcontractors, shall be borne in full by the Contractor, including legal fees and other expenses to the Owner resulting directly or indirectly from the interruption.

1.03 SUBMITTAL

- A. In accordance with Section 01 33 00, the Contractor shall submit a detailed Maintenance of Facility Operation (MOFO) plan including individual outage plans and time schedules for operations for each work sequence that requires interruption, disruption of normal plant operation or removal from service of any system especially the filters, lagoon, valves, rate of flow controllers, clearwell, pipelines, channel, electrical circuit, equipment, or structure. The schedule shall be coordinated with the construction schedule specified in the General Conditions of the Contract Documents and shall meet the restrictions and conditions specified in this section. All of the systems listed in paragraph 1.04 "Sequence and Schedule of Construction" below will be addressed in the MOFO plan.
- B. The detailed outage plans shall describe the Contractor's method for maintaining continuous operation except as provided below for periodic, short duration service interruptions. At a minimum the detailed outage plans will include:
 - 1. Work sequence
 - 2. List of materials to be present on site for installation in the work during the outage.
 - 3. Contractor equipment needed.

4. General support, blocking and rigging sketches demonstrating the planned approach to safeguarding the existing systems and installation of new work.
5. Disinfection plans for both during and following work.
6. Contractor labor requirements including names of proposed workers
7. Safety plan and job hazard analysis
8. Lockout/tagout plan
9. Owner responsibilities
10. Contractor responsibilities
11. Contingency plan along with a list of potential failures or other concerns with potential mitigation strategies for unexpected occurrences or emergencies.

1.04 SEQUENCE AND SCHEDULE OF CONSTRUCTION

- A. To permit continuous treatment of water and compliance with North Carolina Rules Governing Public Water Systems NCAC Title 15A requirements as well as the NPDES requirements for the backwash lagoon system, the construction schedule and work required in the General Conditions of the Contract Documents shall provide for the following specific constraints.
- B. The Contractor shall observe the following restrictions:
 1. Systems or individual equipment items shall be isolated, dewatered, deenergized, or depressurized in accordance with the detailed outage plan and schedule.
 2. The Owner and Engineer shall be notified in writing at least one week in advance of the start of every planned interruption.
- C. Clearwell pipe penetration repair
 1. The Contractor will be required to complete the clearwell pipe penetration repair before any of the shutdowns required for the filter valve replacement are started.
 2. The Owner will lower and maintain the water level in the clearwell to below approximately elevation 2562 and close the associated influent isolation valve.
 3. Contractor will complete the repair work
 4. Owner will return the clearwell to normal operation.
- D. Filter Valve Replacements
 1. Work to replace the valves on each of the six filters will proceed one filter at a time until the work on that filter including disinfection and start-up and commissioning including full production of potable water from the filter prior to moving on to the next filter. Filters 5 and 6 will be completed after Filters 1 through 4 have been completed and placed back into service.
 2. If a filter is removed from service for a period longer than 48 hours, the filter must be disinfected in accordance with State of North Carolina rules governing public water systems 15A NCAC 18C.1004 including application of chlorine solution having a minimum concentration of 50 ppm. Solution shall be dispersed throughout filter bed and remain in contact for a minimum of 24 hours. Disinfection of the filters and associated piping shall be the Contractor's responsibility and in accord with the Owner's requirements. The Owner will take all required bacteriological samples.

3. All filter valves installed on existing systems and associated piping exposed during temporary shut downs must be disinfected in accordance with State of North Carolina rules and AWWA C651.
4. The Owner will be responsible for operating the valves and controls necessary for shutting down and returning each filter to service.
5. Each motorized valve to be replaced will be deenergized and locked out/tagged out prior to any work to replace it.
6. Contractor should be aware that many of the existing valves leak and the Contractor will need to accommodate significant amounts of water that may continue to flow past the valves using to isolate the systems.
7. In general three plant shut downs will be required to allow for the Contractor to begin work on each filter (i.e., the entire water treatment plant will be shut down a total of 18 times). Each of these shutdowns must be carefully scheduled in advance and approved by the Owner. Owner may delay any shutdown due to current circumstances such as line breaks, fires, or other similar conditions.
 - a. Prior to each shutdown, the Contractor must have all tools, supports, workforce, and materials in place necessary for the work before the Owner will begin the shutdown process. Contractor must install temporary blocking and supports as necessary to complete all work prior to any shut down. Contractor will cover all surrounding areas with clean plastic prior to shutdown and take all steps necessary to prevent contamination during the process of the work to maintain the exposed pipe interiors clean and disinfected. Contractor will have in place and maintain a set of blind flanges and multiple sets of spare gaskets to be used in case of unforeseen conditions such as poor fit up, work not proceeding within the planned outage window, Owner need to return system to operation due to a line break, fire, etc. Contractor will have replaced all existing flange bolts and other pipe connecting hardware prior to each shut down. Only mechanical means (i.e., wrenches, saws, etc.) may be used to remove existing hardware). Cutting torches are prohibited.
 - b. Shutdowns will be limited to a maximum of eight (8) hours each except for the backwash water valve replacement and leak repair at Filter No. 5 will be allowed up to 24 hours.
 - c. Shutdowns will be limited to daytime work Tuesday, Wednesday or Thursday—one shutdown per day.
 - d. Contractor will work continuously until the work is complete and ready for the Owner to return the system to operation
 - e. All open pipes will be blanked off during the work to prevent debris or other objects or persons from entering.
 - f. The following are additional specific requirements related to each of the 18 shutdowns. It is anticipated that the shutdowns will proceed in the following sequence:
 - 1) Back wash water system shut downs
 - a) During this shut down filter backwashing will not be available, but the other five (5) filters can remain in operation.
 - b) Owner will close the main backwash header supply and drain the backwash header to the extent practicable using the filter to waste valves.

- c) Contractor will remove and replace the backwash water drain valve for the filter in the closed position. As part of the work for Filter No. 5 the installation of the new flanged coupling adapter and repair of the leak in the backwash water line will be accomplished during the same shut down.
 - d) Owner will return the backwash header to service.
- 2) Finished water system shut down
 - a) Owner will shut the entire filter plant down and reduce the operating level in the clearwell to approximately elevation 2562.
 - b) The Contractor will drain the finished water header system using the existing 2-inch taps on Filters 1 through 4 or other means as needed.
 - (1) On Filters 1 through 4, remove and replace the filter rate of flow controller unit in the closed position. Note that the water level will need to be lowered below the lower flange on the connecting elbow to facilitate the removal of the rate of flow controller.
 - (2) On Filters 5 & 6, remove and replace the finished water isolation valves in the closed position
 - c) Owner will return other filters to service
- 3) Raw water system shut down
 - a) Owner will shut down the entire filter plant and isolate the raw water feed using a buried upstream manual isolation valve and by closing the raw water influent valves on the other filters.
 - b) Contractor will drain system as needed and remove and replace the raw water influent valve. There is no drain valve on this system.
- 8. A single shutdown to replace the backwash water master rate of flow control valve will be required and will be limited to 8 hours. The Owner will isolate the backwash tank from the system and drain the backwash header to the extent possible using one of the filter to waste valves. The Contractor will need to accommodate the remaining water in the riser pipe at the rate of flow controller.
- 9. The air valve actuator replacement for each filter will be performed while the associated filter is out of service.
- 10. Following installation of all of the valves associated with a filter including connection of the power and testing of the controls, the contractor will proceed with the approved disinfection process and the Owner will place the filter back into service.
- 11. Construction of the backwash lagoon flow monitoring system and associated piping shall be performed without significant interruption of the system:
 - a. If requested by the Contractor, the Owner can hold off on backwashing filters for up to 48 hours at a time depending upon system conditions.
 - b. Also, if requested by Contractor, Owner can operate using only Lagoons 1 & 2 for up to four weeks to facilitate Construction.
 - c. Contractor may draw down the water level in Lagoon 3 using temporary pumps to facilitate construction.
 - d. See Section 33 01 30.50 for bypass pumping requirements.
- 12. Installation of the backwash lagoon flow metering system at the Mills River Plant will be completed without interruption of operation. If requested by the Contractor, the Owner can hold off on backwashing filters for up to 48 hours at a time.

13. Repair of leaks around pipe penetrations in the filter gallery wall at the North Fork Plant will be completed without interrupting service
14. Construction of the high pressure water line at the North Fork Plant will be completed without interrupting the high service water system operation. The existing buried piping system is presently out of service. The building water in the filter building may be shut down by the Owner for up to 8 hours using existing valving. Contractor will barricade off the existing bathroom during any shut off. The high pressure water line shall be completed by May 30, 2017.
15. Activities, sequence and time of performance for architectural and structural building repairs at the North Fork Plant will be completed without interrupting any services. Contractor will conduct work so as to allow for continued safe operation of the water plant systems.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 COORDINATION OF WORK

- A. Contractor will maintain regular communication with the Owner and Engineer as the work progresses
- B. Maintenance of Facility Operation (MOFO) Meetings
 1. In accordance with 01 31 19, Contractor will prepare agendas, conduct the following meetings and distribute notes to attendees and the Engineer:
 2. Initial MOFO workshop
 - a. Contractor will present the detailed plan and schedule for all work items.
 - b. Owner, Contractor and Engineer to attend
 - c. Based upon input at this meeting the Contractor will revise and resubmit the MOFO plan
 3. Weekly MOFO meetings
 - a. Every week when Contractor is working on the site(s) the Contractor's superintendent and key staff will meet with the Owner's operating staff to discuss planned work, coordination and safety.
 4. Individual outage/shut down meetings
 - a. Prior to any shutdown the Contractor's superintendent, foreman and other key staff will meet with Owner's operating staff to discuss the planned work, coordination and safety.
 - b. For each of the nineteen (19) shutdowns required for installation of new filter valves, the meeting will be held in the filter gallery before the Contractor's work commences. Confirmation of all preparation, tools, equipment and materials, etc. needed for the work will be made using checklists prepared by the Contractor. Emergency and contingency plans will be reviewed and cell phone and other contact information for key staff will be shared.

END OF SECTION

ATTACHMENT C
PRELIMINARY DRAWINGS

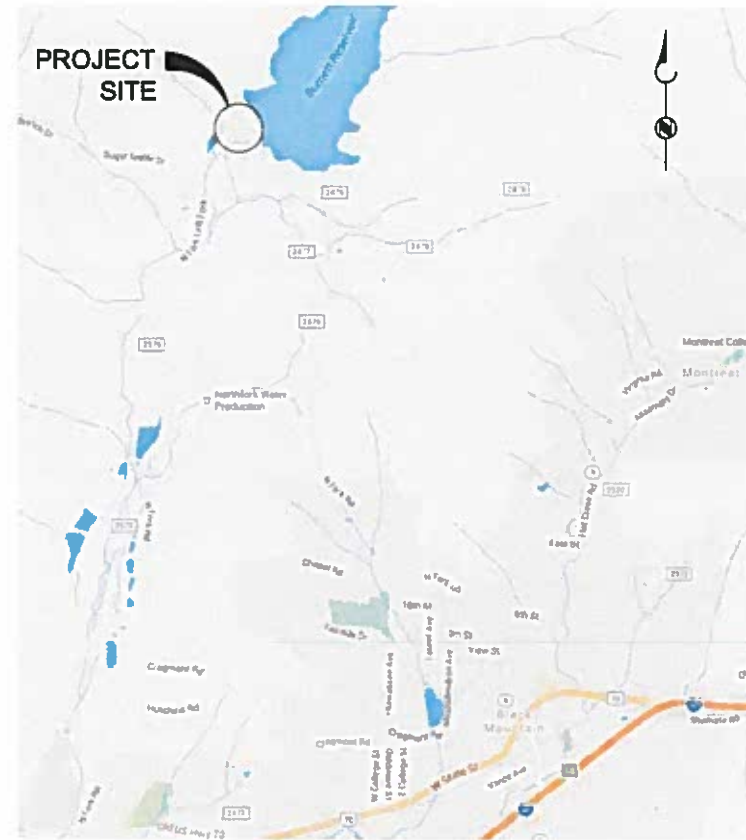


CITY OF ASHEVILLE MISCELLANEOUS PLANT UPGRADES

JULY 2016

INDEX OF SHEETS

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GENERAL		
1	G-001	COVER
2	G-002	GENERAL NOTES LEGEND, ABBREVIATIONS AND SYMBOLS
CIVIL		
3	C-001	GENERAL DETAILS 1
4	C-002	GENERAL DETAILS 2
5	C-003	GENERAL DETAILS 3
6	C-101	NF 8 INCH HIGH PRESSURE WATER LINE
7	C-102	NF BACKWASH LAGOON DISCHARGE METERING MH
8	C-103	MR BACKWASH LAGOONS DECANT STRUCTURE FLOW MEASUREMENT
STRUCTURAL		
9	S-001	NORTH FORK WTP DETAILS
10	S-101	NORTH FORK WTP KEY PLAN FILTER STRUCTURE
11	S-102	NORTH FORK WTP KEY PLAN ADMINISTRATION BUILDING
MECHANICAL		
12	M-101	NORTH FORK FILTER BUILDING LOWER LEVEL PARTIAL PLAN 1
13	M-102	NORTH FORK FILTER BUILDING LOWER LEVEL PARTIAL PLAN 2
14	M-202	NORTH FORK FILTER BUILDING SECTIONS - 1
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ELECTRICAL		
16	E-001	ELECTRICAL LEGEND 1
17	E-002	STANDARD DETAILS
18	E-103	RISER DIAGRAM MILLS RIVER AND NORTH FORK



NORTH FORK WTP
3374 NORTH FORK-LEFT FORK ROAD
BLACK MOUNTAIN, N.C. 28711



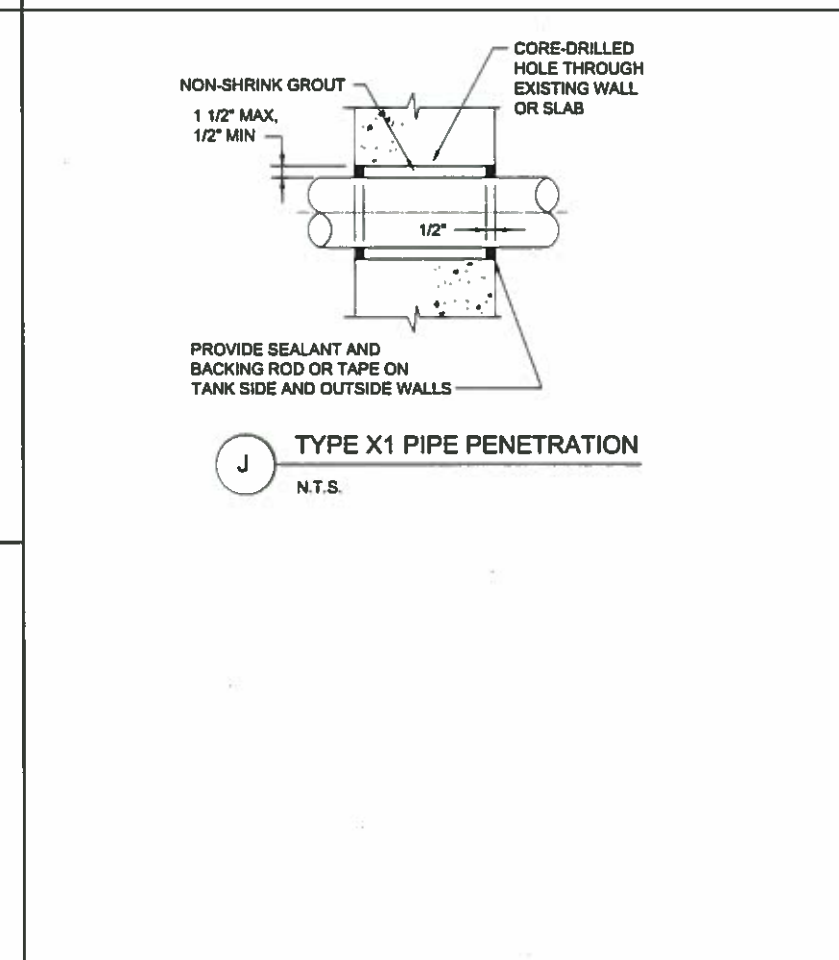
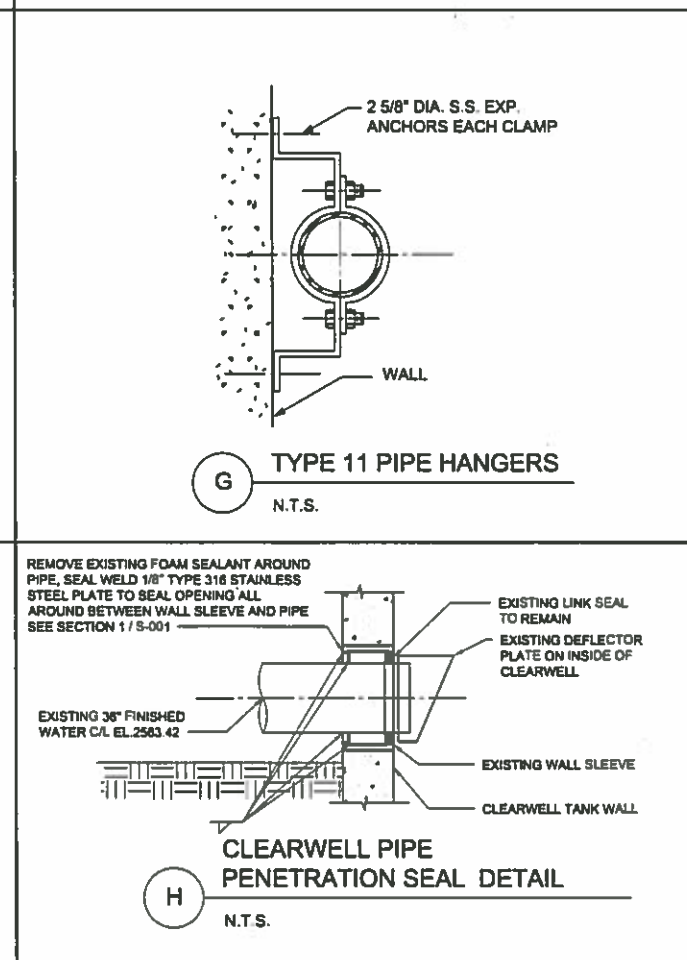
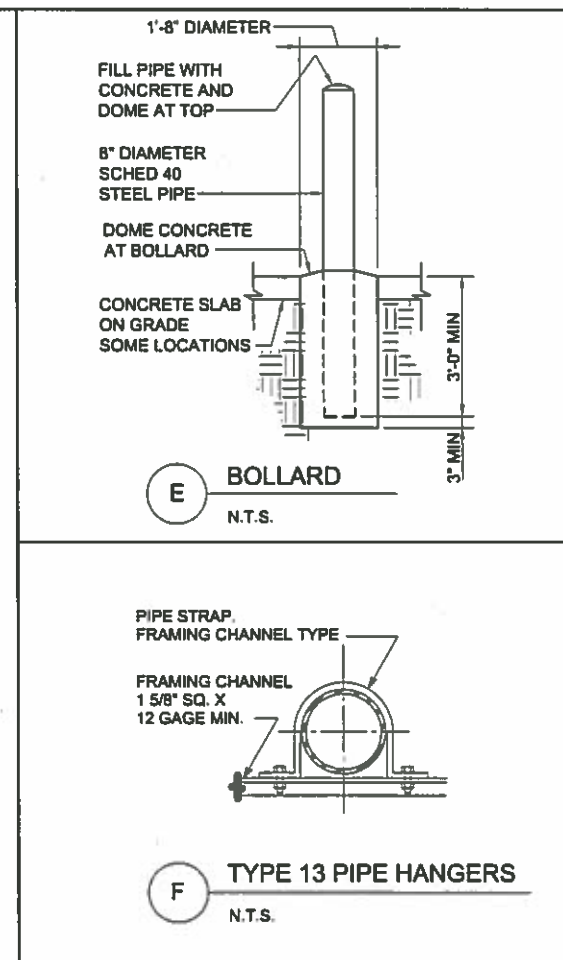
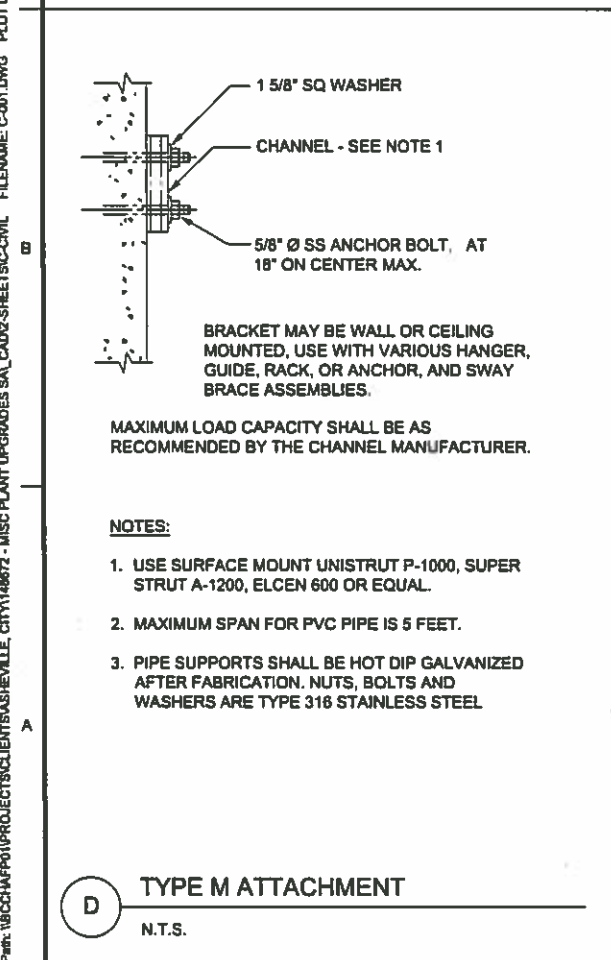
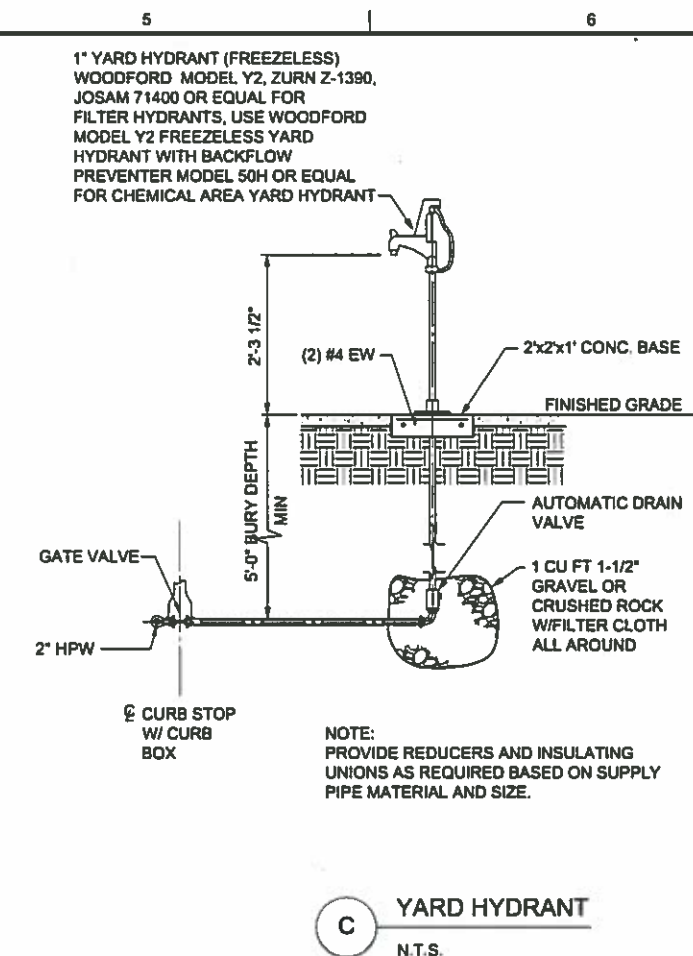
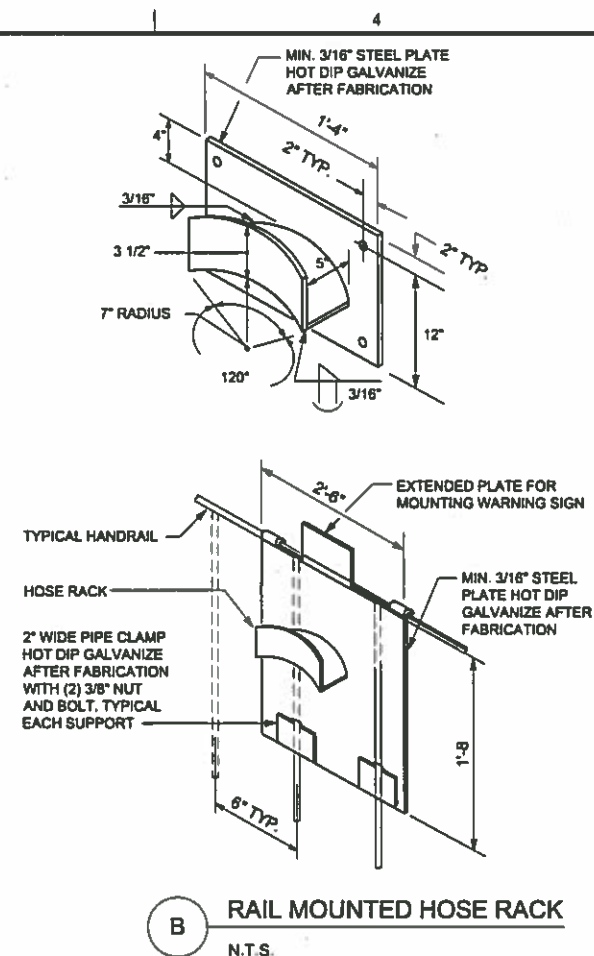
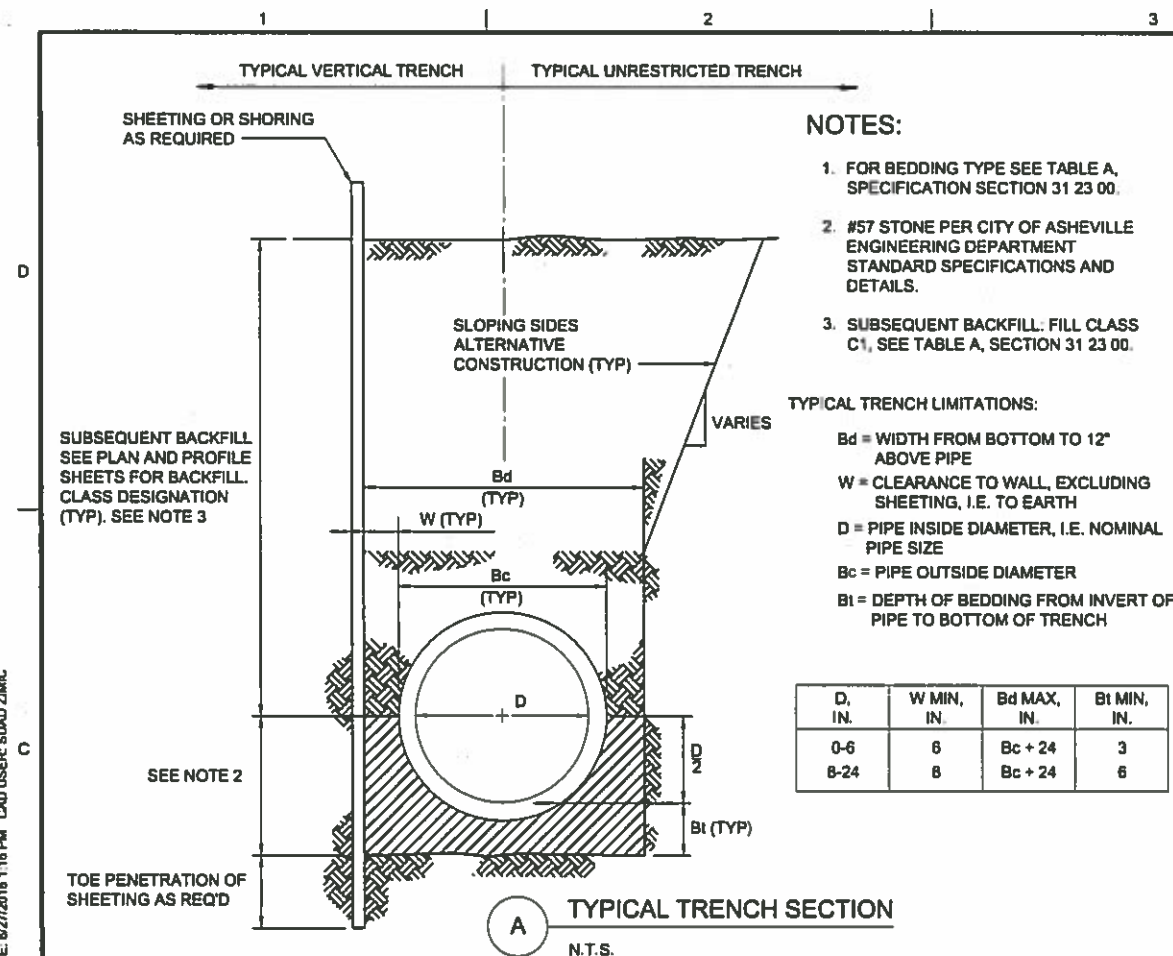
MILLS RIVER WTP
4037 HAYWOOD ROAD
MILLS RIVER, N.C. 28759

NOT RELEASED FOR CONSTRUCTION

Brown AND Caldwell

NC LICENSE NO.: F-0785

309 EAST MOREHEAD STREET SUITE 160
CHARLOTTE, NC 28202
TEL: 704-358-7204





NOTES:

1. ALL FITTINGS MUST BE RESTRAINED AS SPECIFIED IN SECTION 8.05 OF THE STANDARD SPECIFICATIONS AND DETAILS MANUAL.
2. DIMENSION TABLE GIVEN IS A GUIDE ONLY. ENGINEER SHALL BE RESPONSIBLE TO CALCULATE THRUST BLOCK DIMENSIONS BASED ON ACTUAL SOIL AND OPERATING PRESSURE CONDITIONS.
3. FITTING JOINTS SHALL BE KEPT FREE OF CONCRETE. A LAYER OF POLYETHYLENE PLASTIC SHALL BE PLACED BETWEEN THE FITTING AND THE CONCRETE.
4. PRE-CAST THRUST BLOCKS ARE NOT ACCEPTABLE.
5. CONCRETE SHALL HAVE 4000 P.S.I. COMPRESSIVE STRENGTH.



B THRUST BLOCKS FOR FITTINGS
N.T.S.



FORMS NOT REQUIRED BELOW SPRING
LINE. CONCRETE MAY BE PLACED AGAINST
SHAPED BANKS IN LIEU OF FORMS.

A CONCRETE ANCHOR
N.T.S.

NOTES:

1. INSTALL ANCHORS ON SLOPES 20° OR GREATER AT 50' INTERVALS.
2. INSTALL ANCHORS BETWEEN PIPE JOINTS.



**CITY OF ASHEVILLE
MISCELLANEOUS
PLANT UPGRADES**

[illegible]

LINE IS 2 INCHES
AT FULL SIZE

DESIGNED: L. JONES

DRAWN: S. ZIMIC

CHECKED: R. CARRIER

CHECKED: K. WEST

APPROVED: L. JONES

FILENAME

C-002.DWG

BC PROJECT NUMBER
148572

CLIENT PROJECT NUMBER

CIVIL

CIVIL

1. *Journal of Management Studies*, 1990, 27, 1.

GENERAL DETAILS

100

10. *Journal of the American Medical Association*, 2000; 283: 2686-2692.

100

10. *Journal of the American Medical Association*, 2000; 284: 1039-1044.

DRAWING NUMBER	
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C-002

SHEET NUMBER

4 OF 10

[illegible]

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 City: 148072 - MISC PLANT UPGRADES SAI
 Client: 148072 - MISC PLANT UPGRADES SAI
 User: 148072 - MISC PLANT UPGRADES SAI
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- Brown AND Caldwell**
NC LICENSE NO.: F-0786
CHARLOTTE, NC

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FOR
CONSTRUCTION



**CITY OF ASHEVILLE
MISCELLANEOUS
PLANT UPGRADES**

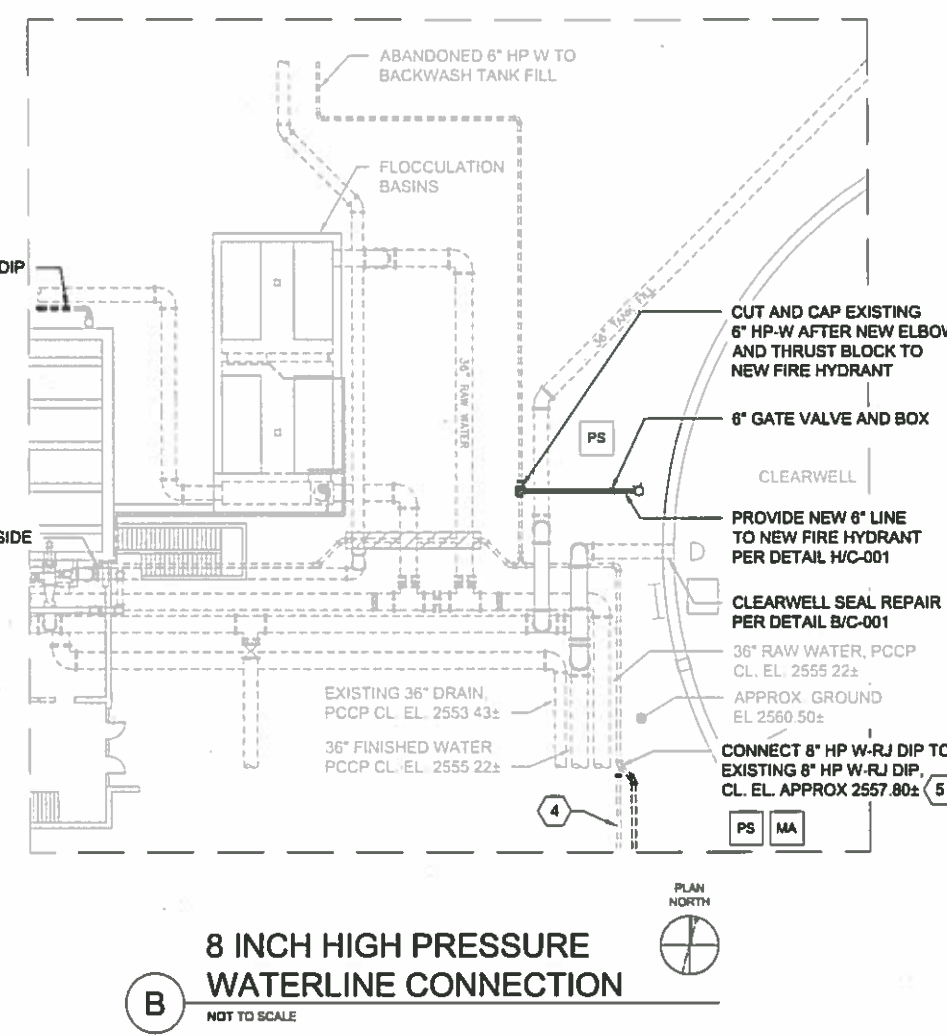
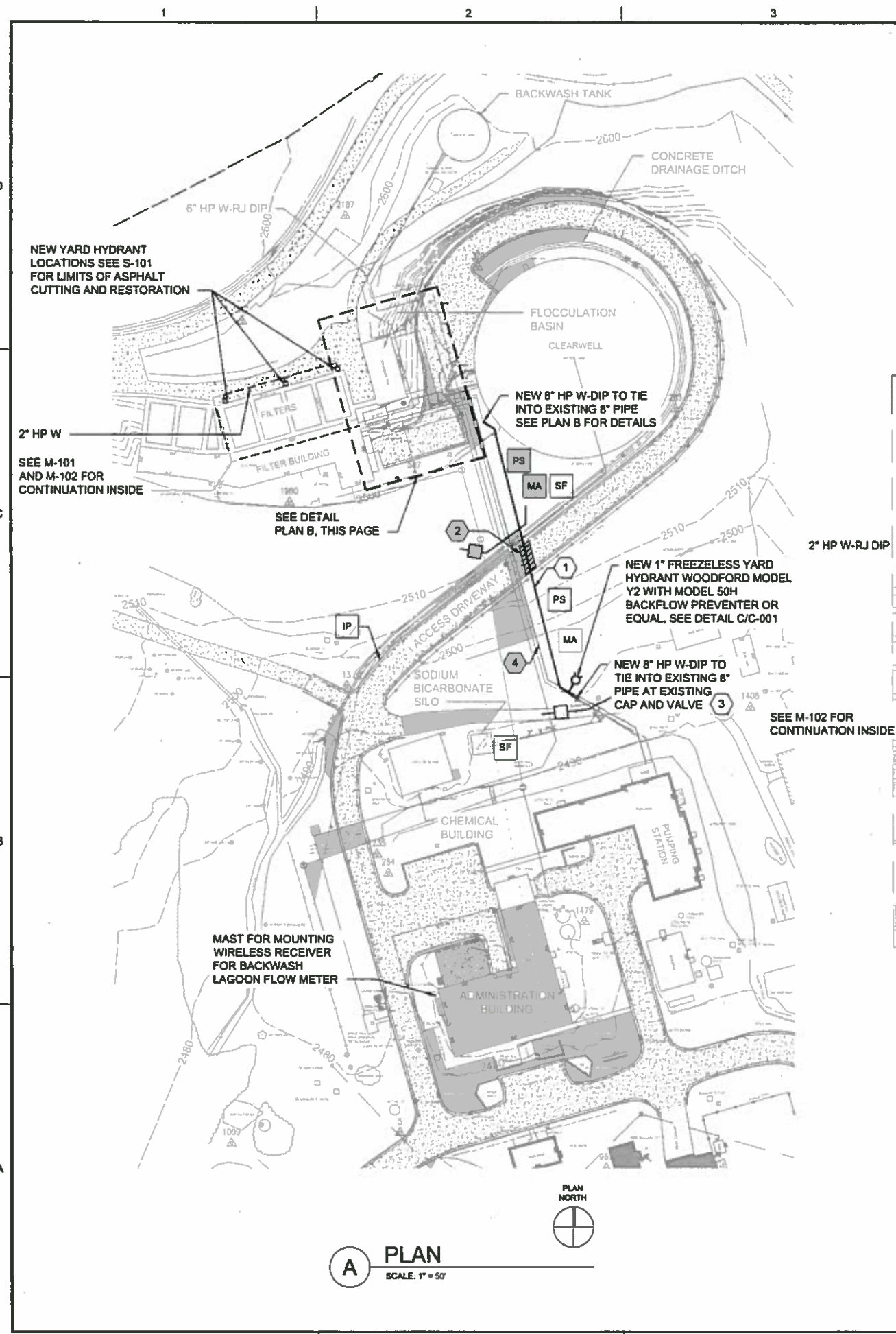
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GENERAL DETAILS 3	A

SHEET NUMBER
5 OF 18

SF SEDIMENT FENCE

C SEDIMENT FENCE DETAIL
N.T.S.

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C-101.DWG
7/1/2018 2:03 PM
CAD USER: SUAD ZIMIC
C-101.DWG
7/1/2018 2:03 PM
CAD USER: SUAD ZIMIC



- ### GENERAL NOTES
1. ALL ELEVATIONS TAKEN FROM RECORD DRAWINGS DATED MARCH 1992 FOR "NORTH FORK WATER TREATMENT PLANT EXPANSION" BY CDM.
 2. CONTRACTOR SHALL CONFIRM ALL EXISTING TIE-IN LOCATIONS AND ELEVATIONS PRIOR TO SUBMITTAL OF PIPE LAYOUT DRAWINGS AND PRODUCT SUBMITTALS FOR REVIEW.
 3. PROVIDE CONCRETE ANCHORS PER DETAIL AC-002 ON THE NEW WATERLINE EVERY 50 FEET.
 4. ALL AREAS TO BE RESTORED TO ORIGINAL, OR BETTER, CONDITIONS UPON COMPLETION OF WORK.

- ### SHEET KEY NOTES
1. ABANDONED 8" HP-W CROSSES UNDER EXISTING 36" PCCP FINISHED WATERLINE FROM THE CLEARWELL. NEW 8" HP-W TO BE PLACED A MINIMUM OF 4 FT AWAY FROM EXISTING WATERLINE AT 3 FT OF COVER. EXISTING 36" FINISHED WATERLINE TO BE PROTECTED DURING CONSTRUCTION. PROVIDE CONCRETE ENCASEMENT AT CROSSING OF 36" PIPE AND ACROSS ACCESS ROAD.
 2. CONTRACTOR SHALL NEATLY SAWCUT EXISTING ASPHALT ACROSS WHOLE WIDTH AND REPLACE WITH NEW ASPHALT AFTER INSTALLATION OF NEW WATERLINE
 3. CONTRACTOR SHALL LOCATE EXISTING VALVE AND CAPPED 8" HP WATERLINE, TEST THE EXISTING LINE BACK TO THE PUMP STATION TO CONFIRM NO LEAKAGE OF THE EXISTING WATERLINE PRIOR TO CONNECTING NEW LINE.
 4. EXISTING ABANDONED 8" WATERLINE TO BE CAPPED AT EITHER END AND FILLED WITH FLOWABLE FILL.
 5. CONTRACTOR SHALL PRESSURE TEST THE EXISTING 8" LINE FROM NEW CONNECTION LOCATION NEXT TO THE CLEARWELL, TO INSIDE FILTER BUILDING TO CONFIRM NO LEAKAGE OF THE EXISTING WATERLINE PRIOR TO CONNECTING NEW LINE.

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CHARLOTTE, NC

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FOR
CONSTRUCTION

CITY OF ASHEVILLE
MISCELLANEOUS
PLANT UPGRADES

REVISIONS	
REV	DESCRIPTION
1	7/1/2018

LINE 1/8" = 1' AT FULL SIZE

DESIGNED: L. JONES
DRAWN: S. ZIMIC
CHECKED: R. CARRIER
CHECKED: K. WEST
APPROVED: L. JONES

FILENAME: C-101.DWG
BC PROJECT NUMBER: 148672
CLIENT PROJECT NUMBER:


CIVIL
NF 8 INCH HIGH PRESSURE WATER LINE

DRAWING NUMBER: C-101
SHEET NUMBER: 6 OF 18



- NOTES:**
1. BOTTOM OF ULTRASONIC SENSOR SHALL BE A MINIMUM OF 2'-0" ABOVE THE TOP OF THE WEIR GATE AND/OR WATER LEVEL.



REVISIONS		
REV	DATE	DESCRIPTION
	7/1/2016	
<div style="text-align: center;">  <p>LINE IS 2 INCHES AT FULL SIZE</p> </div>		
DESIGNED:	L. JONES	
DRAWN:	S. ZIMIC	
CHECKED:	R. CARRIER	
CHECKED:	K. WEST	
APPROVED:	L. JONES	
FILENAME C-103.DWG		
BC PROJECT NUMBER 148672		
CLIENT PROJECT NUMBER		

CIVIL

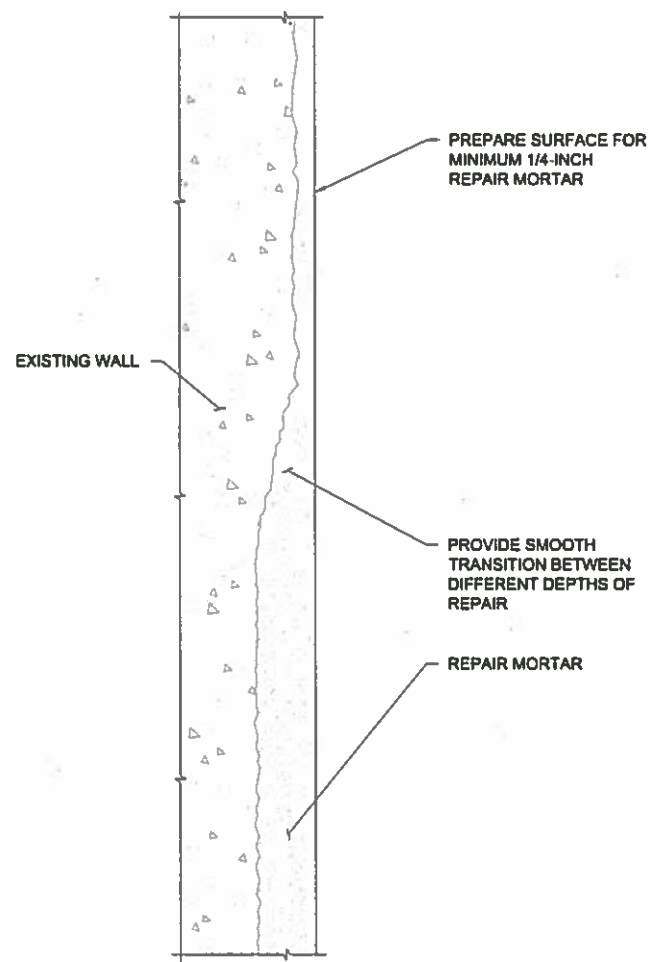
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DRAWING NUMBER

C-103

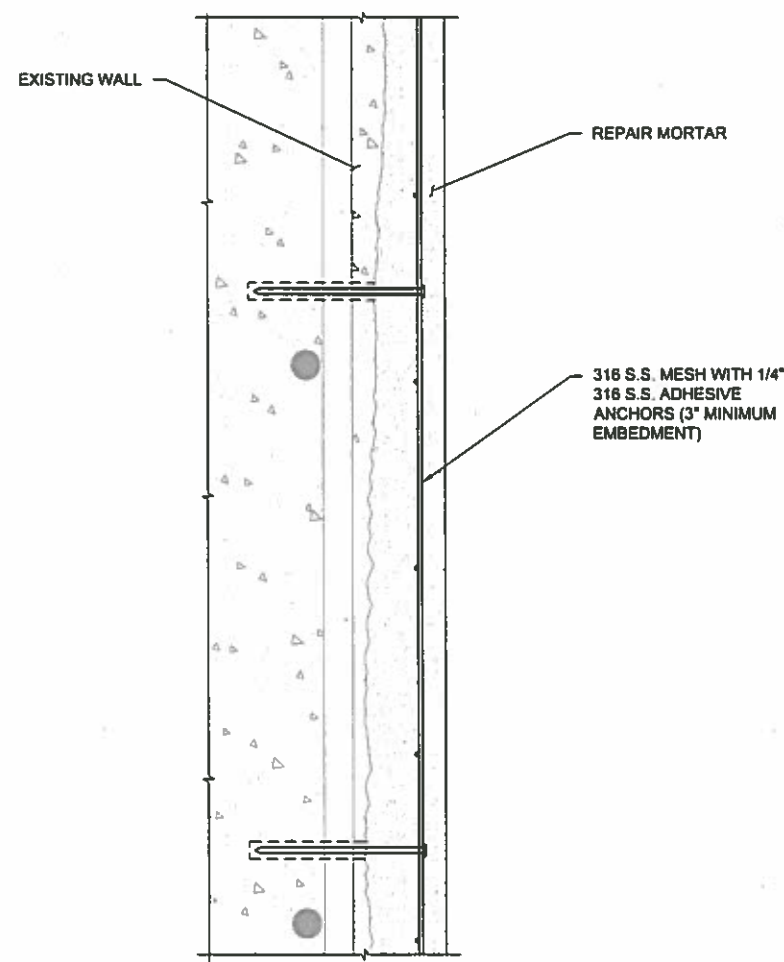
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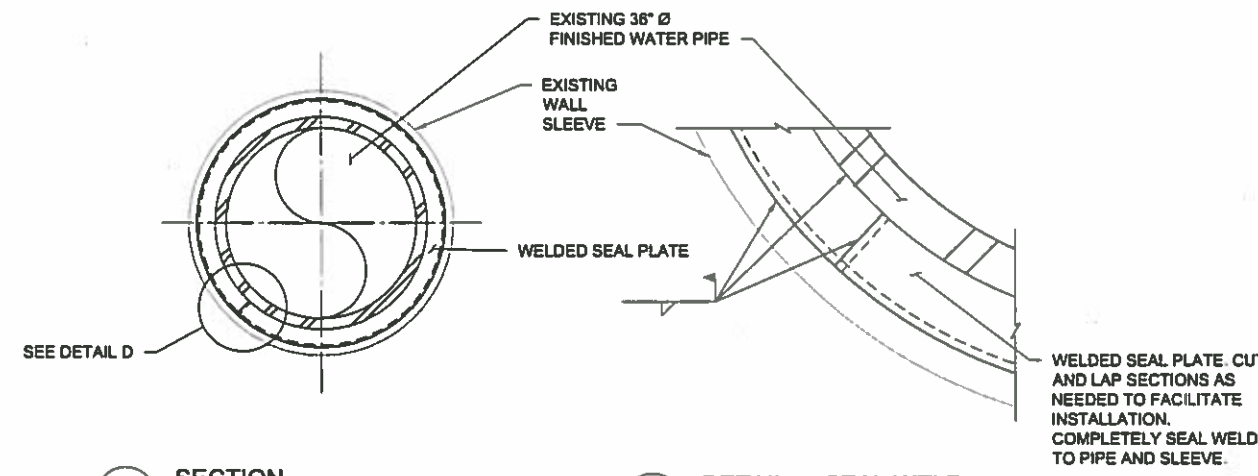
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(WALL SECTION)

A DETAIL
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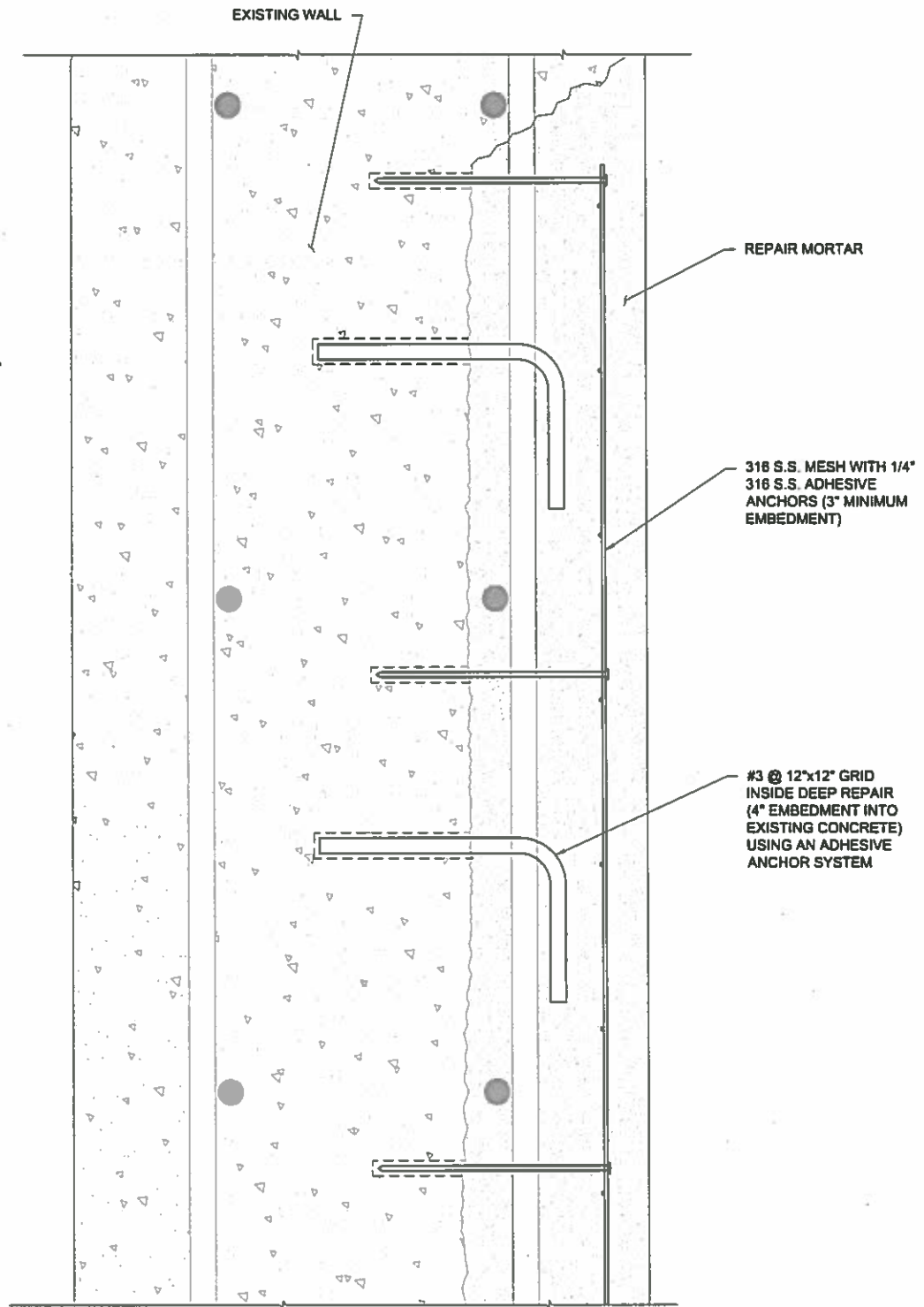
1.25" TO 2.00" DEEP REPAIR
(WALL SECTION)

B DETAIL
SCALE: NONE



1 SECTION
SCALE: NONE C-001

D DETAIL - SEAL WELD
SCALE: NONE



GREATER THAN 2" DEEP REPAIR
1" BEHIND EXISTING REBAR
(WALL SECTION)

C DETAIL
SCALE: NONE

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NC LICENSE NO.: F-0785
CHARLOTTE, NC

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FOR
CONSTRUCTION



CITY OF ASHEVILLE
MISCELLANEOUS
PLANT UPGRADES

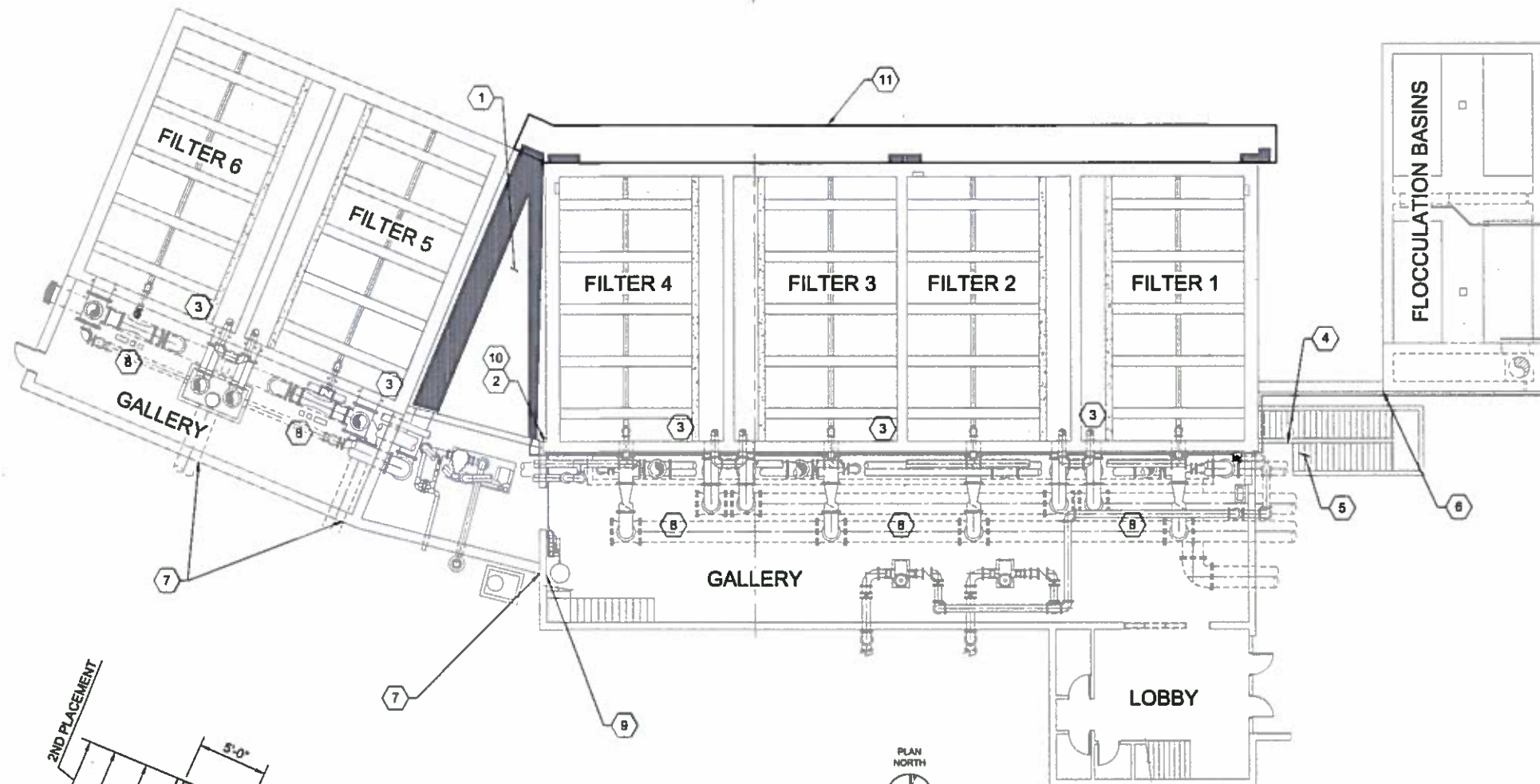
REVISIONS		
REV	DATE	DESCRIPTION
	7/1/2016	

LINE IS 2 INCHES
AT FULL SIZE
DESIGNED: D. HABEREK
DRAWN: P. RICKETTS
CHECKED: L. JONES
CHECKED: R. CARRIER
APPROVED: D. HABEREK
FILENAME
S-001.DWG
BC PROJECT NUMBER
140872
CLIENT PROJECT NUMBER

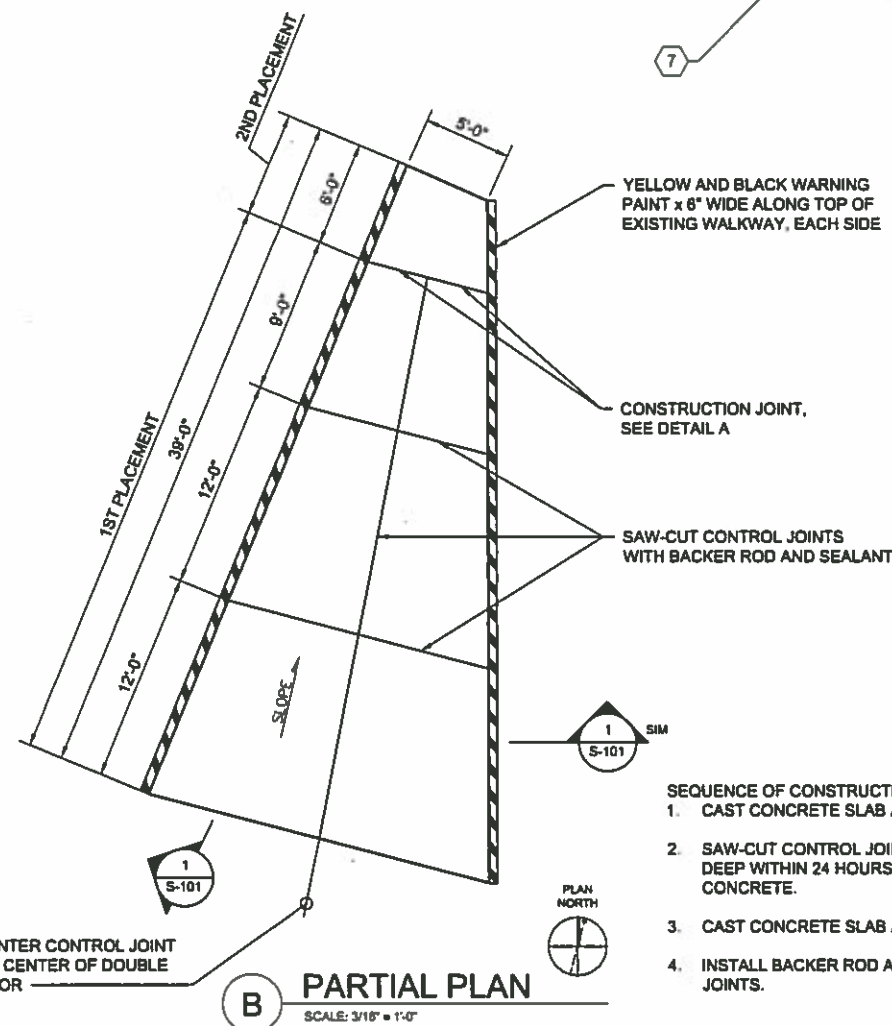
STRUCTURAL
NORTH FORK WTP
DETAILS

DRAWING NUMBER
S-001
SHEET NUMBER
9 OF 18

P:\BCH\A\PROJECTS\CLIENTS\ASHEVILLE, CITY\148672 - MISC PLANT UPGRADES\SA\CAD\2 SHEETS\STRUCTURAL FILENAME: S-101.DWG PLOT DATE: 8/27/2016 2:10 PM CAD USER: SUAD ZMC

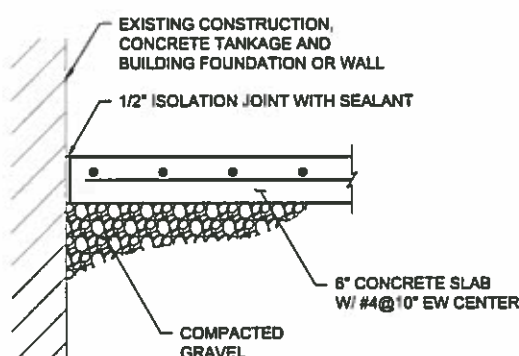


A KEY PLAN
SCALE: 3/32" = 1'-0"

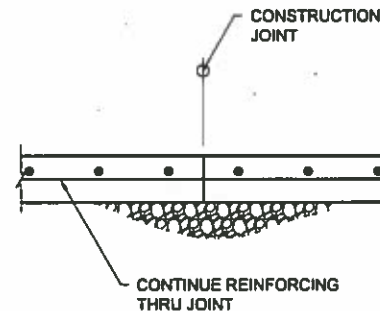


B PARTIAL PLAN
SCALE: 3/16" = 1'-0"

- SEQUENCE OF CONSTRUCTION NOTES:
1. CAST CONCRETE SLAB AT 1ST PLACEMENT.
 2. SAW-CUT CONTROL JOINTS MINIMUM 1-1/4" DEEP WITHIN 24 HOURS AFTER PLACING CONCRETE.
 3. CAST CONCRETE SLAB AT 2ND PLACEMENT.
 4. INSTALL BACKER ROD AND SEALANT AT ALL JOINTS.



1 SECTION
SCALE: NONE



A CONSTRUCTION JOINT DETAIL
SCALE: NONE

SHEET KEY NOTES

1. REMOVE EXISTING SIDEWALK ALONG BUILDING AND FROM BUILDING TO ROADWAY. RE-GRADE AND COMPACT SUBGRADE FOR UNIFORM SLOPE FROM BUILDING TO ROADWAY. CAST NEW CONCRETE SLAB PER PARTIAL PLAN AND DETAILS.
2. GRIND SURFACES TO BOND WITH SEALANT. THEN FILL 2" WIDE x 10" GAP AT FOUNDATION USING NON-SHRINK GROUT. HOLD GROUT DOWN FROM GRADE BY 1". INSTALL BOND BREAKER TAPE AND SEALANT AT SIDEWALK ELEVATION. CLEAN OUT OLD SEALANT IN VERTICAL MASONRY JOINT FROM GRADE TO TOP OF CONCRETE PARAPET. CLEAN EDGES OF JOINT BY GRINDING. INSTALL BACKER ROD AND NEW SEALANT.
3. AT UPPER LEVEL, INSPECT AND CLEAN OUT OLD SEALANT AT EXTERIOR DOOR FRAMES AND WINDOW FRAMES WHERE NOT RECENTLY REPLACED. INSTALL BACKER ROD OR BOND BREAKER TAPE WITH NEW SEALANT TO MATCH. INSPECT AND RE-POINT MASONRY AT WINDOW SILLS WHERE NEEDED.
4. SAW-CUT DETERIORATED CONCRETE CAP AT STAIR DIVIDER WALL TO REMOVE DETERIORATED LEVEL SECTION PLUS APPROXIMATELY 1'-6" DOWN SLOPED SURFACE (APPROXIMATELY 7-8 LIN FT OVERALL). FORM TO MATCH EXISTING. INSTALL 1/2" ISOLATION JOINT MATERIAL AT SAW-CUT AND BUILDING WALL SURFACES PRIOR TO RE-CASTING CONCRETE CAP. SEE SECTION 1 FOR REINFORCING AND JOINT DETAIL. APPLY RUB FINISH TO MATCH EXISTING. APPLY BOND BREAKER TAPE OR BACKER ROD WITH SEALANT AT SIDES AND TOP OF ISOLATION JOINTS.
5. RE-ATTACH OR REPLACE (3) LOOSE STAIR NOSINGS.
6. REMOVE OLD SEALANT FROM VERTICAL JOINT IN WALL OF FLOCCULATION BASINS ADJACENT TO STAIR. USE GRINDER TO CLEAN SURFACES PRIOR TO PLACING BOND BREAKER TAPE OR BACKER ROD WITH NEW SEALANT. REPAIR ACROSS TOP OF WALL TO GRADE, APPROXIMATELY 16 LIN FT.
7. AT TWO-STORY, FULL HEIGHT MASONRY CONTROL JOINTS, REMOVE OLD SEALANT, USE GRINDER TO CLEAN SURFACES. INSTALL BOND BREAKER TAPE OR BACKER ROD WITH NEW SEALANT, APPROXIMATELY 100 LIN FT TOTAL.
8. INJECT CRACKS IN FILTER GALLERY WALL TO STOP LEAKS AT PIPE PENETRATIONS. MULTIPLE LOCATIONS. REFER TO SECTION 03 73 20.
9. BELOW PARAPET OF NEWER ADDITION, ABOVE SLOPED ROOF, GRIND OUT MASONRY CRACKS AND/OR MORTAR AND RE-POINT, APPROXIMATELY 5 COURSES.
10. AT VERTICAL STEPPED MASONRY JOINTS, GRIND OUT CRACKED MASONRY MORTAR AND RE-POINT PER SECTION 04 20 10. USE COLOR MATCH SEALANT WHERE RE-POINTING IS NOT POSSIBLE, APPROXIMATELY 12 LIN FT.
11. SAW-CUT AND REMOVE ASPHALT FOR INSTALLATION OF NEW WATERLINE. RE-PAVE AFTER WORK IS COMPLETED.

Brown and Caldwell

NC LICENSE NO.: F-0785

CHARLOTTE, NC

NOT RELEASED
FOR
CONSTRUCTION



CITY OF ASHEVILLE
MISCELLANEOUS
PLANT UPGRADES

REVISIONS		
REV	DATE	DESCRIPTION
1	7/12/2016	

DESIGNED: D. HABEREK	
DRAWN: P. RICKETTS	
CHECKED: L. JONES	
CHECKED: R. CARRIER	
APPROVED: D. HABEREK	
FILENAME: S-101.DWG	
BC PROJECT NUMBER: 148672	
CLIENT PROJECT NUMBER:	

STRUCTURAL
NORTH FORK WTP
KEY PLAN FILTER
STRUCTURE

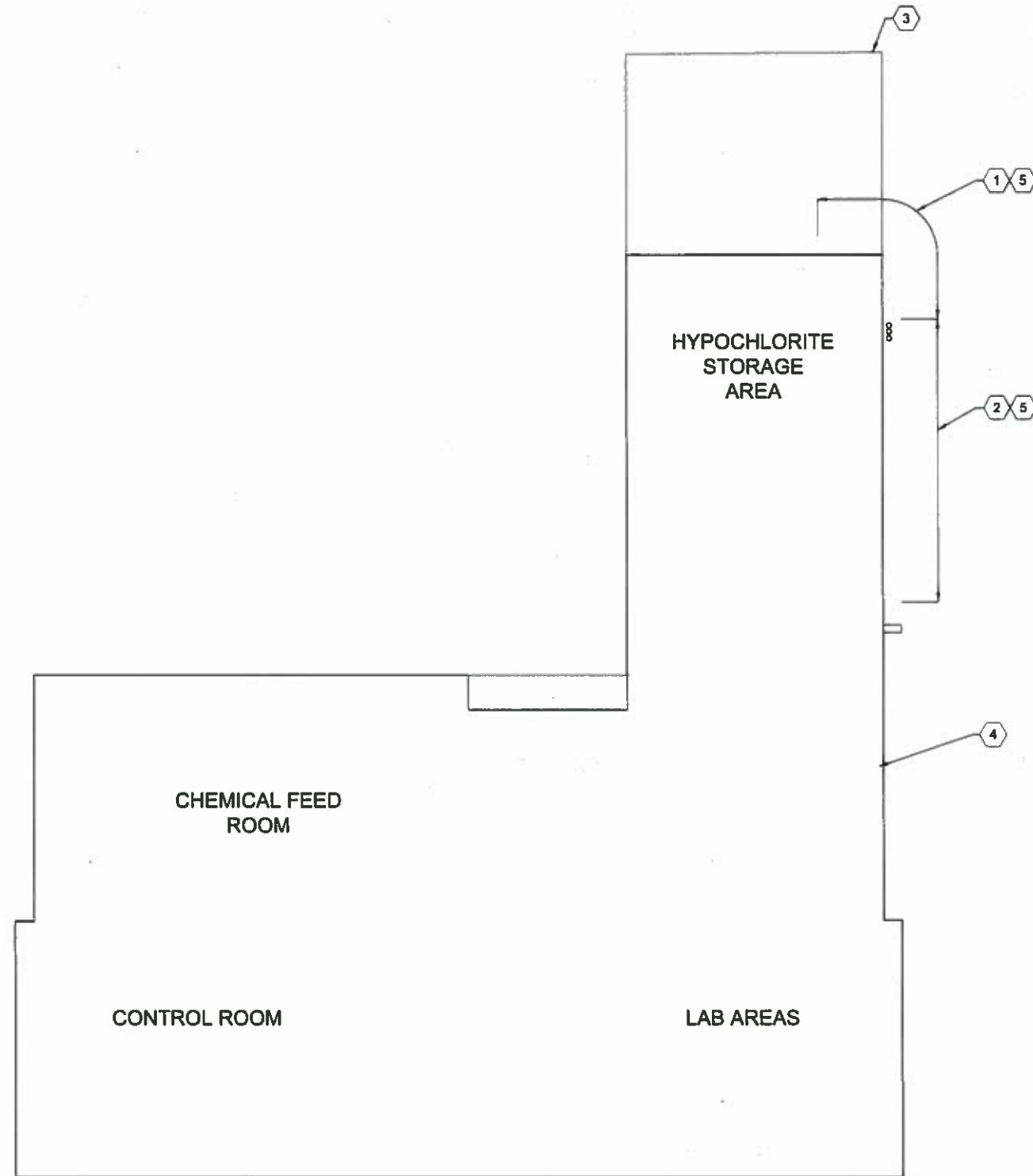
DRAWING NUMBER

S-101

SHEET NUMBER
10 OF 16

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0.1 in



A KEY PLAN
SCALE: 1/8" = 1'-0"



SHEET KEY NOTES

1. REPAIR DETERIORATED CONCRETE EXPOSED AT BUILDING FOUNDATION WALL. REFER TO SECTION 03 73 20. PROVIDE TEMPORARY SUPPORT OF CMU FASCIA AS NEEDED. APPROXIMATELY 14 SQUARE FEET. REFER TO DETAILS ON S-001.
2. REPAIR DETERIORATED CONCRETE EXPOSED AT BUILDING FOUNDATION WALL USING BUSH HAMMER SURFACE PREPARATION. REFER TO SECTION 03 73 20. FINISH TO BLEND WITH CORNER REPAIR. APPROXIMATELY 24 SQUARE FEET.
3. REPAIR VERTICAL CMU FASCIA CRACK BY SAW-CUTTING MORTAR JOINTS AND REPOINTING PER SECTION 04 20 10. USE COLOR MATCH SEALANT WHERE REPOINTING IS NOT POSSIBLE. APPROXIMATELY 15 LINEAR FEET.
4. REPAIR SMALL DIAGONAL CRACK BELOW LINTEL AT TOP LEFT SIDE OF LOUVER OVER DOUBLE DOOR. SAW-CUT CRACKED MORTAR AND REPOINT PER SECTION 04 20 10. USE COLOR MATCH SEALANT WHERE REPOINTING IS NOT POSSIBLE. APPROXIMATELY 2 LINEAR FEET.
5. REMOVE DEBRIS AFTER COMPLETION OF CONCRETE REPAIRS. REGRADE AS NEEDED TO RESTORE SITE.

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CHARLOTTE, NC

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CONSTRUCTION



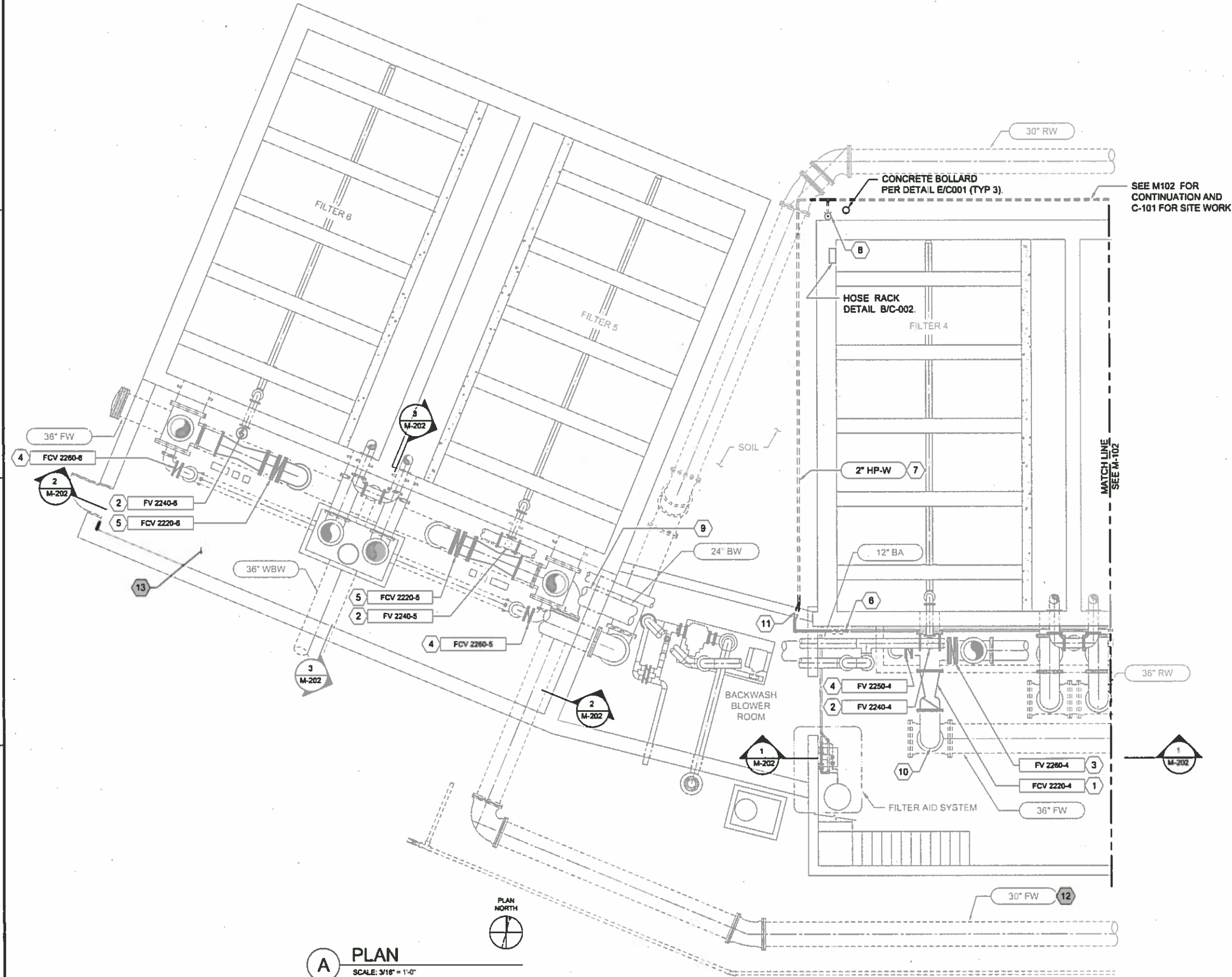
CITY OF ASHEVILLE
MISCELLANEOUS
PLANT UPGRADES

REVISIONS		
REV	DATE	DESCRIPTION
	7/1/2016	

LINE IS 2 INCHES AT FULL SIZE	
DESIGNED:	D. HABEREK
DRAWN:	P. RICKETTS
CHECKED:	L. JONES
CHECKED:	R. CARRIER
APPROVED:	D. HABEREK
FILENAME	S-102.DWG
BC PROJECT NUMBER	148672
CLIENT PROJECT NUMBER	

STRUCTURAL
NORTH FORK WTP KEY PLAN ADMINISTRATION BUILDING
DRAWING NUMBER
S-102
SHEET NUMBER
11 OF 15

P:\BCH\PROJECTS\CITY\ASHEVILLE, CITY\148672 - MISC PLANT UPGRADES\SA-CAD\2-SHEETS\M-MECHANICAL-RVAC FILENAME: M-101.DWG PLOT DATE: 8/23/2018 4:48 PM CAD USER: SUAD ZMHC



A PLAN
SCALE: 3/16" = 1'-0"

- GENERAL NOTES**
1. SEE GENERAL FILTER VALVE REPLACEMENT NOTES ON SHEET G-002.
- SHEET KEY NOTES**
1. REMOVE EXISTING FW ROF CONTROLLER AND ACTUATOR AND INSTALL NEW FW ROF CONTROLLER AND ACTUATOR (TYP 4 EACH).
 2. REMOVE EXISTING BA ACTUATOR AND INSTALL NEW BA ACTUATOR (TYP 6 EACH).
 3. REMOVE EXISTING 24" BW BFV AND ACTUATOR AND INSTALL NEW 24" BW BFV AND ACTUATOR (TYP 6 EACH).
 4. REMOVE EXISTING 12" FWW BFV AND ACTUATOR AND INSTALL NEW 12" FWW BFV AND ACTUATOR (TYP 6 EACH).
 5. REMOVE EXISTING 24" FW BFV AND ACTUATOR AND INSTALL NEW 24" FW BFV AND ACTUATOR.
 6. CONNECT NEW RPZ BACKFLOW PREVENTER TO EXISTING 2" WATER.
 7. NEW 2" HIGH PRESSURE WATER LINE.
 8. FREEZE PROOF YARD HYDRANT WITH 1" HOSE CONNECTION, SEE DETAIL C/C-001.
 9. REPLACE FLANGE BOLTS AND GASKET AT LEAKING JOINT ON 24" BW.
 10. EXISTING 2 INCH BRASS CORPORATION STOP AND TAPPING SADDLE DRAIN CONNECTION (TYP FILTERS 1, 2, 3, AND 4).
 11. SEE DETAIL J/C-001 FOR WALL PENETRATION.
 12. FW TO CLEARWELL.
 13. REPLACE ALL EXISTING FLANGE AND COUPLING HARDWARE (BOLTS, NUTS, WASHER) ON ALL OF THE EXISTING FLANGED WATER PIPE SYSTEMS (WBW, FW, BW, RW, OF ETC) IN THE FILTER 5 AND 6 GALLERY.

Brown and Caldwell

NC LICENSE NO.: F-0785

CHARLOTTE, NC

NOT RELEASED FOR CONSTRUCTION

CITY OF ASHEVILLE MISCELLANEOUS PLANT UPGRADES

REVISIONS		
REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: K. WEST

DRAWN: S. ZMHC

CHECKED: R. CARRIER

CHECKED:

APPROVED:

FILENAME: M-101.DWG

BC PROJECT NUMBER: 148672

CLIENT PROJECT NUMBER:

MECHANICAL

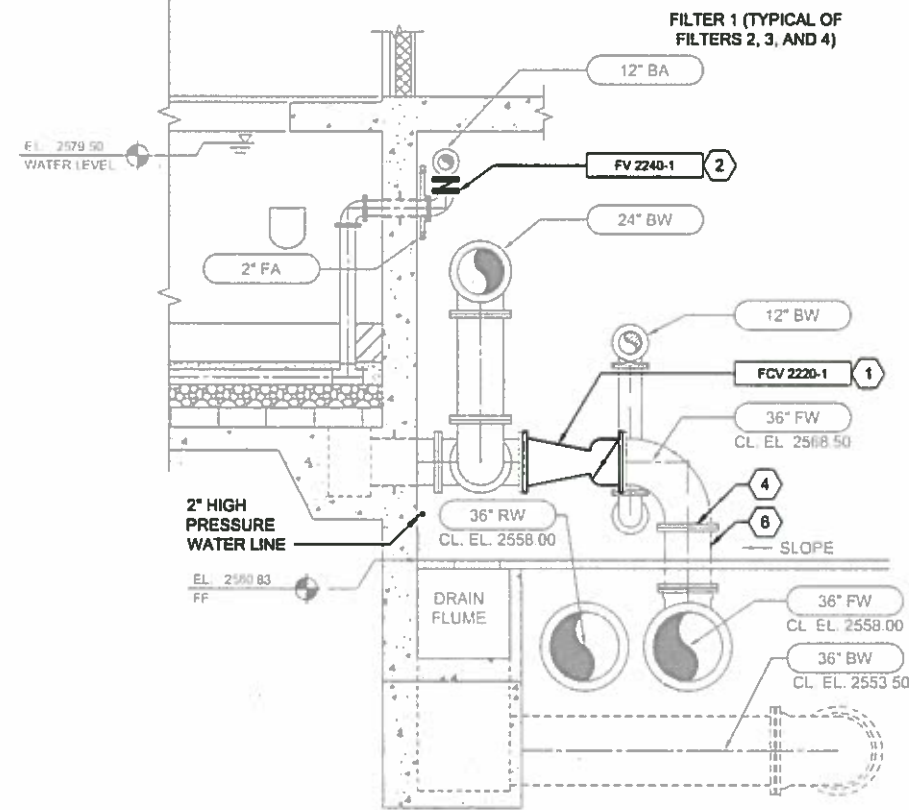
NORTH FORK FILTER BUILDING LOWER LEVEL PARTIAL PLAN 1

DRAWING NUMBER

M-101

SHEET NUMBER

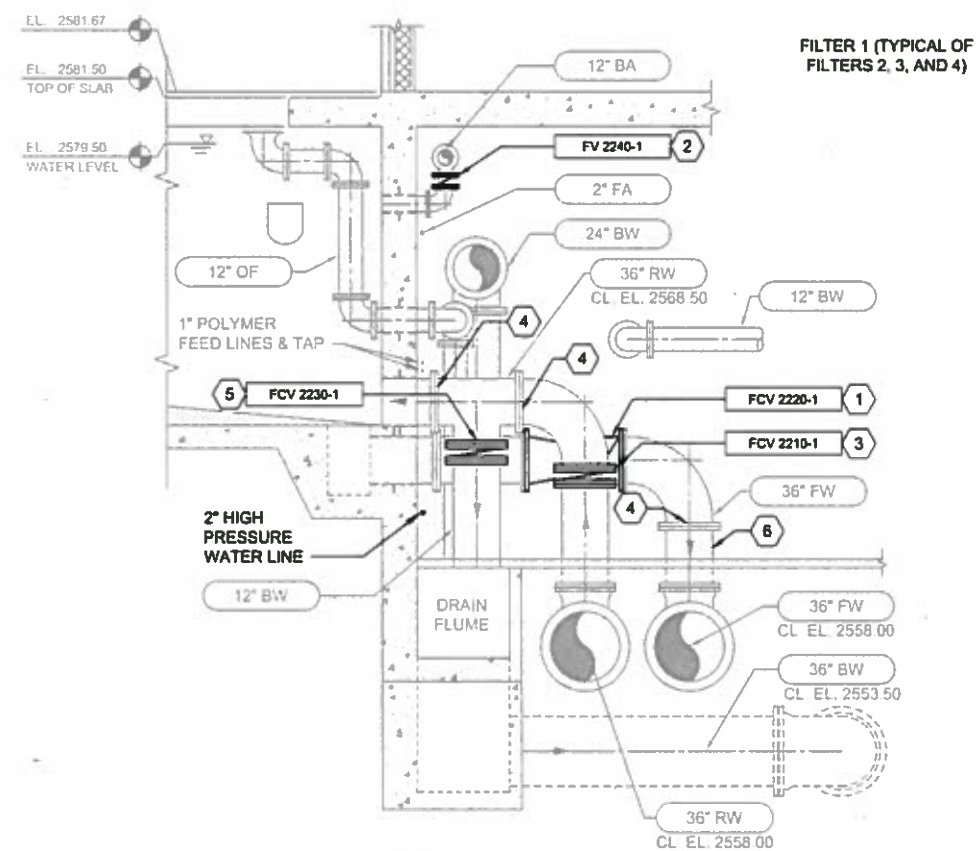
12 OF 18



4 SECTION
SCALE: 1/4" = 1'-0"



A BACKWASH PIPE LEAK AT FILTER 5
SCALE: 1/4" = 1'-0"



5 SECTION
SCALE: 1/4" = 1'-0"



B **BLOWER ROOM BW PIPE**
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. SEE SHEET G-002 FOR GENERAL NOTES.

SHEET KEY NOTES

1. REMOVE EXISTING FW ROF CONTROLLER AND ACTUATOR AND INSTALL NEW FW ROF CONTROLLER AND ACTUATOR (TYP 6 EACH).
2. REMOVE EXISTING BA ACTUATOR AND INSTALL NEW BA ACTUATOR (TYP 6 EACH).
3. REMOVE EXISTING 24" BW BFV AND ACTUATOR AND INSTALL NEW 24" BW BFV AND ACTUATOR (TYP 6 EACH).
4. REPLACE FLANGE HARDWARE AND GASKET.
5. REMOVE EXISTING 24" WBW BFV AND ACTUATOR AND INSTALL NEW 24" WBW BFV AND ACTUATOR.
6. EXISTING 2 INCH BRASS CORPORATION STOP AND TAPPING SADDLE DRAIN CONNECTION (TYP FILTERS 1, 2, 3, AND 4).

Brown AND Caldwell

NC LICENSE NO.: F-0785


CHARLOTTE, NC

NOT RELEASED
FOR
CONSTRUCTION



**CITY OF ASHEVILLE
MISCELLANEOUS
PLANT UPGRADES**

REVISIONS		
REV	DATE	DESCRIPTION

LINE IS 2 INCHES

 AT FULL SIZE

DESIGNED:	K. WEST
DRAWN:	S. ZIMIC
CHECKED:	R. CARRIER
CHECKED:	L. JONES
APPROVED:	L. JONES
FILENAME	
M-203.DWG	
BC PROJECT NUMBER	
148572	
CLIENT PROJECT NUMBER	

MECHANICAL

**NORTH FORK
FILTER BUILDING
SECTIONS 2**

DRAWING NUMBER

M-203

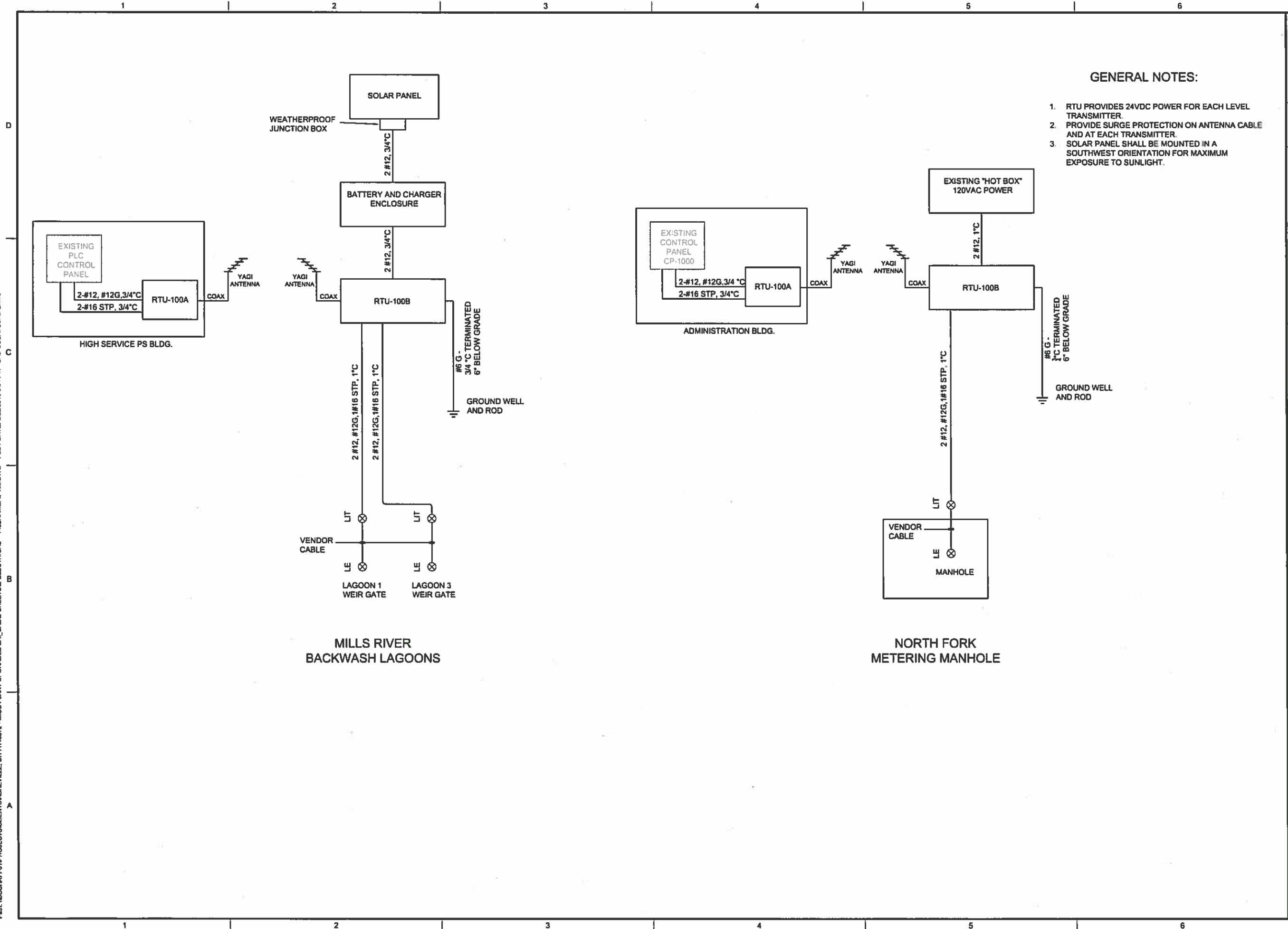
SHEET NUMBER
15 OF 18

Unit: Feet
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FILENAME: E-001.DWG PLOT DATE: 9/23/2018 3:46 PM CAD USER: SUAD ZIMC

1		2		3		4		5		6																																	
RACEWAYS		SINGLE LINE DIAGRAMS		PLAN DRAWINGS		LIGHTING		GENERAL NOTES:		Brown and Caldwell NC LICENSE NO.: F-0785 CHARLOTTE, NC																																	
<div>HH23 MANHOLE (MH) OR HANDHOLE (HH),</div> <div>15-JB-XXXX JUNCTION BOX. OPTIONAL IDENTIFIER.</div> <div>15-TB-1301 TERMINAL BOX. OPTIONAL IDENTIFIER.</div> <div>PBD-1900-1,3,5 HOME RUN EXPOSED - SEE PANELBOARD, SWITCHBOARD, OR MCC SCHEDULE FOR CIRCUIT INFORMATION. EXAMPLE: HOME TO PANELBOARD PBD-1900, CIRCUITS 1, 3, AND 5.</div> <div>PBD-1900-1,3,5 HOME RUN CONCEALED - SEE PANELBOARD, SWITCHBOARD, OR MCC SCHEDULE FOR CIRCUIT INFORMATION. EXAMPLE: HOME TO PANELBOARD PBD-1900, CIRCUITS 1, 3, AND 5.</div> <div>CABLE TRAY MODIFIERS: CTS - 24VDC OR LESS CTC - 120V CONTROL CONDUCTORS CTP - 600V POWER CONDUCTORS CABLE 4/0 AND LARGER SHALL NOT BE STACKED VERTICALLY. WHEN TWO TRAY MODIFIERS IDENTIFY A SINGLE TRAY, THE CONTRACTOR MAY USE DIVIDER OR INSTALL SEPARATE TRAYS (CTC/CTS).</div> <div>CABLE TRAY WITH COVER MODIFIER, AS ABOVE</div> <div>P 05P1100 RACEWAY IDENTIFIER</div> <div>RACEWAY EXPOSED MODIFIERS FOR RACEWAY TYPE: H - POWER (ABOVE 600V) P - POWER C - CONTROL S - SIGNAL D - DATA F - OPTICAL FIBER PC - POWER AND CONTROL</div> <div>RACEWAY CONCEALED</div> <div>RACEWAY TURNED TOWARD THE VIEWER.</div> <div>RACEWAY TURNED DOWN</div> <div>CONDUIT CAPPED</div> <div>DB 05P1100 DUCT BANK IDENTIFIER (OPTIONAL)</div> <div>DB --- DIRECT BURIED DUCT BANK</div> <div>---CDB--- CONCRETE ENCASED DUCT BANK</div> <div>---RC--- REINFORCED CONCRETE DUCTBANK</div> <div>---OHE--- OVERHEAD POWER LINE</div>		<div>BUS CONNECTION OR CONNECTED WIRES</div> <div>480V 15VA TRANSFORMER 120V</div> <div>AMPS DISCONNECT</div> <div>AMPS CIRCUIT BREAKER</div> <div>MCP n XX COMBINATION MOTOR STARTER MCP AND THERMAL OVERLOAD SIZED BY MANUFACTURER BASED ON SUBMITTED AND APPROVED MOTOR</div> <div>n NEMA SIZE</div> <div>XX TYPE: BLANK FULL VOLTAGE, NON-REVERSING FVR FULL VOLTAGE, REVERSING 2S2W FULL VOLTAGE, 2 SPEED, 2 WINDING</div> <div>INSTRUMENT OR DEVICE</div> <div>SPD SURGE PROTECTIVE DEVICE</div> <div>XX MOTOR CONTROLLER XX TYPE: VFD VARIABLE FREQUENCY DRIVE RVSS REDUCED VOLTAGE SOLID STATE</div> <div>5 MOTOR, HORSEPOWER SHOWN</div> <div>n KW, KVA KW OR KVA RATED EQUIPMENT n=LOAD VALUE IN KW OR KVA</div> <div>EXAMPLES: CABLE AND RACEWAY IDENTIFICATION P101A: 3#12, 120V, 1C C101A: 1-7#14, 34°C S101A: 1PR#16, 34°C A. SINGLE CONDUCTOR B. MULTI-CONDUCTOR C. PAIRS (OR TR FOR TRIADS) P101A UNIQUE CIRCUIT IDENTIFIER (CABLE AND RACEWAY), LETTER PREFIX INDICATES TYPE: P POWER, 120V OR HIGHER C CONTROL, 120V S SIGNAL, LESS THAN 120V X SPARE H HIGH VOLTAGE, OVER 600V N AIR OR MISC #12 SIZE OF CONDUCTOR OR GROUND IN AWG OR KCML 1"C SIZE OF RACEWAY IN INCHES 2x = 2 SETS</div>		<div>CV151 EQUIPMENT TAG</div> <div>MOTOR</div> <div>CONTROL VALVE</div> <div>DISCONNECT SWITCH</div> <div>COMBINATION MOTOR STARTER, NOT LOCATED IN AN MCC</div> <div>LOCAL CONTROL STATION</div> <div>FIELD MOUNTED INSTRUMENT OR DEVICE</div> <div>JUNCTION (PULL) BOX</div> <div>THERMOSTAT</div> <div>HORN</div> <div>GROUNDING</div> <div>GROUND ROD</div> <div>GROUND ROD WITH GROUND WELL</div> <div>GROUND CONNECTION, BOLTED TYPE</div> <div>GROUND CONNECTION, EXOTHERMIC TYPE</div> <div>GROUNDING CONDUCTOR</div> <div>ABBREVIATIONS: THIS LIST APPLIES TO THE ELECTRICAL DRAWINGS AND MAY NOT INCLUDE ALL OF THE ABBREVIATIONS USED. OTHER ABBREVIATIONS ARE PER ANSI OR IEEE STANDARDS, OR COMMON USAGE.</div> <div>AFF ABOVE FINISHED FLOOR (1000) AMPERE INTERRUPTING RATING (K)AIC BC BARE COPPER CB CIRCUIT BREAKER CONT CONTINUED CMD COMMAND CPT CONTROL POWER TRANSFORMER DWG DRAWING (E), EXIST GRS GALVANIZED RIGID STEEL CONDUIT HH,MH HANDHOLE, MANHOLE HID HIGH INTENSITY DISCHARGE LCS LOCAL CONTROL STATION LFS LIQUIDTIGHT FLEXIBLE STEEL CONDUIT HBV HOWELL-BUNGER VALVE MCC MOTOR CONTROL CENTER</div> <div>MCP MOTOR CIRCUIT PROTECTOR NEC NATIONAL ELECTRICAL CODE NP NAME PLATE PB PULLBOX PBD PANELBOARD PLC PROGRAMMABLE LOGIC CONTROLLER PNL PANEL</div> <div>RECEPT REQ'D SWBD SWITCHBOARD TB TERMINAL BOX TYP TYPICAL VC VENDOR CABLE VFD VARIABLE (ADJUSTABLE) FREQUENCY DRIVE</div>		<div>LIGHT FIXTURE IDENTIFICATION</div> <div>FW TYPE PER FIXTURE SCHEDULE</div> <div>3/35 QTY OF LAMPS PER FIXTURE / LAMP WATTAGE</div> <div>6 QTY OF THE INDICATED TYPE OF LAMP ON THE DRAWING</div> <div>P MOUNTING STYLE: P PENDANT R RECESSED W WALL L POLE S SURFACE</div> <div>8' MOUNTING HEIGHT (BOTTOM OF FIXTURE)</div> <div>3a IDENTIFIER FOR THE SWITCH CONTROLLING THE FIXTURE (FIXTURE IS UNSWITCHED OR SELF-SWITCHED IF OMITTED), TYPICAL OF ALL FIXTURES</div> <div>FLUORESCENT FIXTURE</div> <div>WALL MOUNTED FIXTURE (APPLIES TO HID ALSO)</div> <div>EMERGENCY LIGHTING UNIT, SELF CONTAINED</div> <div>ILLUMINATED EXIT SIGN, DARKENED QUADRANTS INDICATE ILLUMINATED FACES, DIRECTIONAL ARROWS INDICATE DIRECTIONAL ARROWS BE PROVIDED ON THE ILLUMINATED FACE</div> <div>TOGGLE SWITCH</div> <div>a UNIQUE SWITCH IDENTIFICATION</div> <div>3 TYPE: 2 DOUBLE POLE 3 3-WAY 4 4-WAY K KEY OPERATED MC MOMENTARY CONTACT, 3 POSITION MS MANUAL (MOTOR) STARTER</div> <div>DUPLEX RECEPTACLE</div> <div>3 PANELBOARD CIRCUIT FEEDING THE RECEPTACLE</div> <div>GF GF TYPE: GFI GROUND FAULT WP WEATHERPROOF</div>		<div>1. THIS DRAWING IS GENERAL IN NATURE. SOME SYMBOLS SHOWN HEREON MAY NOT BE USED ON THE CONTRACT DRAWINGS.</div> <div>2. IDENTIFICATIONS (ID), SIZES, RATINGS, LOCATIONS AND SIMILAR INFORMATION SHOWN ASSOCIATED WITH SYMBOLS ARE OPTIONAL, EXAMPLES OF SUCH INFORMATION ARE SHOWN WITH SOME SYMBOLS FOR CLARITY.</div> <div>3. THE ELECTRICAL DRAWINGS USE THE SINGLE LINE AND RISER DIAGRAMS AND PANEL SCHEDULES IN CONJUNCTION WITH SHOWING THE LOCATION OF THE ELECTRICAL/ INSTRUMENTATION SOURCES AND LOADS/DEVICES SHOWN ON THE PLAN DRAWINGS TO DEPICT THE WORK. THE CONTRACTOR SHALL USE THESE DOCUMENTS TO DETERMINE AND PROVIDE THE NECESSARY RACEWAY AND WIRING SYSTEM FOR EACH CIRCUIT. ALL INDOOR RACEWAY SHALL BE RUN EXPOSED, AND ROUTED BY THE CONTRACTOR, UNLESS OTHERWISE NOTED. THE TYPE OF RACEWAY AND WIRE USED SHALL BE AS SPECIFIED.</div> <div>4. IF EQUIPMENT SUPPLIED BY MANUFACTURER HAS A LARGER LOAD THAN INDICATED ON THE SINGLE LINE DIAGRAM, THE CONSTRUCTION MANAGER SHALL BE NOTIFIED. THE CABLE, CONDUIT AND ELECTRICAL EQUIPMENT SHALL BE SIZED AS REQUIRED, TO ACCOMMODATE THE HIGHER VALUE.</div> <div>5. IN AREAS WHERE THERE ARE OVERHEAD BRIDGE CRANES, HOISTS, ETC., OR WHERE EQUIPMENT IS LIFTED AND MOVED FOR MAINTENANCE OR REPLACEMENT, NO CONDUITS SHALL BE RUN OVERHEAD THAT WILL INTERFERE WITH THE OPERATION OF THE EQUIPMENT OR ACCESS TO EQUIPMENT.</div> <div>6. THE LOCATION OF THE CONTROL STATIONS SHOWN ON THE PLAN DRAWINGS ARE DIAGRAMMATIC AND THE ACTUAL LOCATION SHALL BE COORDINATED IN THE FIELD WITH THE CONSTRUCTION MANAGER. THE EXACT LOCATION OF THE MOTORS AND ACCESSORIES ARE NOT SHOWN.</div> <div>7. THE CONTRACTOR SHALL COORDINATE WITH THE STRUCTURAL AND MECHANICAL DRAWINGS AND EQUIPMENT SUBMITTALS FOR CONDUIT STUB UP AND TERMINATION LOCATIONS.</div> <div>8. ALL EQUIPMENT SHALL BE LABELED WITH NAMEPLATES. PROVIDE A DESCRIPTION OF THE EQUIPMENT AND THE EQUIPMENT NUMBER ON NAMEPLATES.</div> <div>9. FOR WIRING AND CABLE INSTALLATION REQUIREMENTS, SEE PROJECT SPECIFICATION SECTION 18000. SINCE LIGHTING AND RECEPTACLE CONDUITS AND CABLES ARE NOT SHOWN, THE CONTRACTOR SHALL USE PANELBOARD CIRCUIT SCHEDULES FOR PROVIDING CONDUIT AND CABLE INSTALLATION, SIZE PER NEC.</div>		<div>NOT RELEASED FOR CONSTRUCTION</div> <div><div>CITY OF ASHEVILLE NORTH CAROLINA</div><div>CITY OF ASHEVILLE MISCELLANEOUS PLANT UPGRADES</div><div>REVISIONS</div><table><tr><th>REV</th><th>DATE</th><th>DESCRIPTION</th></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table><div>LINE IS 2 INCHES AT FULL SIZE</div><div>DESIGNED: C. CHALFONTE</div><div>DRAWN: C. CHALFONTE</div><div>CHECKED: J. DIEDRICH</div><div>CHECKED: R. CARRIER</div><div>APPROVED: J. DIEDRICH</div><div>FILENAME E-001.DWG</div><div>BC PROJECT NUMBER 148672</div><div>CLIENT PROJECT NUMBER</div></div>		REV	DATE	DESCRIPTION																												<div>ELECTRICAL</div> <div>ELECTRICAL LEGEND 1</div> <div>DRAWING NUMBER E-001</div> <div>SHEET NUMBER 16 OF 18</div>	
REV	DATE	DESCRIPTION																																									

Part: 18CCHA0101PROJECTSCLIENTSASHEVILLE CITY148672 - MISC PLANT UPGRADES BAI CAD02 SHEET5E-ELECTRICAL FILENAME: E-103.DWG PLOT DATE: 02/23/2018 3:34 PM CAD USER: SUAD ZIMIC

MILLS RIVER SITE OFF



Brown AND Caldwell

NC LICENSE NO.: F-0786

CHARLOTTE, NC

**NOT RELEASED
FOR
CONSTRUCTION**



**CITY OF ASHEVILLE
MISCELLANEOUS
PLANT UPGRADES**

REVISIONS		
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DESIGNED:	C. CHALFONTE
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FILENAME	E-103.DWG
BC PROJECT NUMBER	148672
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ELECTRICAL

**RISER DIAGRAM
MILLS RIVER AND
NORTH FORK**

DRAWING NUMBER
E-103
SHEET NUMBER
18 OF 18